ALFRED M. ALLEN, M.D., M.P.H. • DIRECTOR OF HEALTH

August 21, 1987

Jane Stiles
Superfund Information Officer
Solid and Hazardous Waste Bureau
Montana Department of Health and
Environmental Sciences
Cogswell Building
Helena, MT 59620

Dear Ms. Stiles:

Layne Alfonso referred you to me concerning your request for information on the ASARCO Tacoma Smelter activities. I am the community relations assistant working primarily on the ASARCO site, and other Superfund activities in Commencement Bay, Tacoma.

Enclosed are articles concerning ASARCO employees in particular, monthly STATUS REPORTS on the smelter site stabilization and the latest quarterly UPDATE on the Commencement Bay Superfund Site. I prepare both the STATUS REPORT for ASARCO and the quarterly UPDATE.

I have added your name to the mailing list to receive future reports on these activities. I hope these materials will provide the information you requested.

Also, thank you for the information on the Anaconda Smelter Site. The interview suggestions and questions will be helpful.

Sincerely,

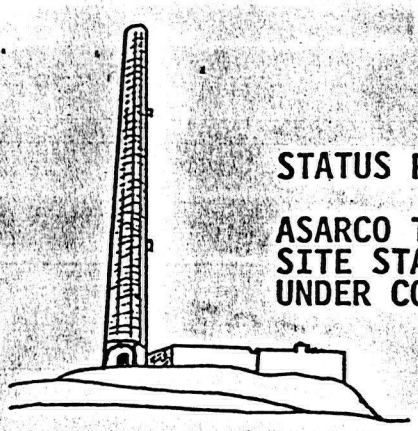
Cynthia Wanless

Cynthia Wanless
Community Relations
Waste and Water Section
Environmental Health Division

CW:brs

Enclosures

TACOMA-PIERCE COUNTY HEALTH DEPARTMENT
3629 SOUTH D ST. TACOMA, WASHINGTON 98408-6897



Doug —
Please return to me -
Janis

STATUS REPORT

ASARCO TACOMA SMELTER
SITE STABILIZATION AND REMEDIAL INVESTIGATION
UNDER CONSENT ORDER

health

September 1987

In September 1986, the U.S. Environmental Protection Agency (EPA) and ASARCO Incorporated reached an agreement to conduct Site Stabilization and Remedial Investigation/Feasibility Study activities at ASARCO's Tacoma Smelter under EPA oversight. The agreement requires ASARCO to stabilize the site, study the extent and nature of contamination, and evaluate long-term remedies for the site.

This STATUS REPORT provides the most recent information on smelter activities through mid-September. Documents related to the activities at ASARCO are available at several Tacoma and Pierce County Public Library branches, and libraries at the University of Puget Sound, Pacific Lutheran University, Pierce County and Tacoma City Council offices, and Tacoma-Pierce County Health Department. If you would like additional information on these activities, please contact Doug Pierce, Tacoma-Pierce County Health Department, 591-6571.

SITE STABILIZATION

This past month those portions of the bunker building (see diagram) scheduled to be demolished in the Site Stabilization Plan (SSP) were taken down. This building is the last scheduled to be demolished under the SSP. Remaining site stabilization work consists of cleaning up and transporting remaining demolition debris to the hazardous waste landfill at Arlington, OR, and steel to Kent, WA for resmelting.

The hill where the smelter stack is located has been hydroseeded, similar to seeding along highways. The grass should help alleviate potential erosion problems during the fall and winter rains.

Modifications to the No. 1 converter which may be used as an incinerator for wood demolition debris have been completed by ASARCO Inc. A test burn for emissions will determine whether the incinerator meets EPA standards and can be used to burn an estimated 2500 tons of wood debris from the demolition activities.

REMEDIAL INVESTIGATION/FEASIBILITY STUDY

EPA has approved Task 2-Plans and Management for the on-site investigations, with investigations and testing beginning September 21. This and other site sampling for the Remedial Investigation, which will describe the types and extent of contamination at the ASARCO Smelter, will continue through the fall.

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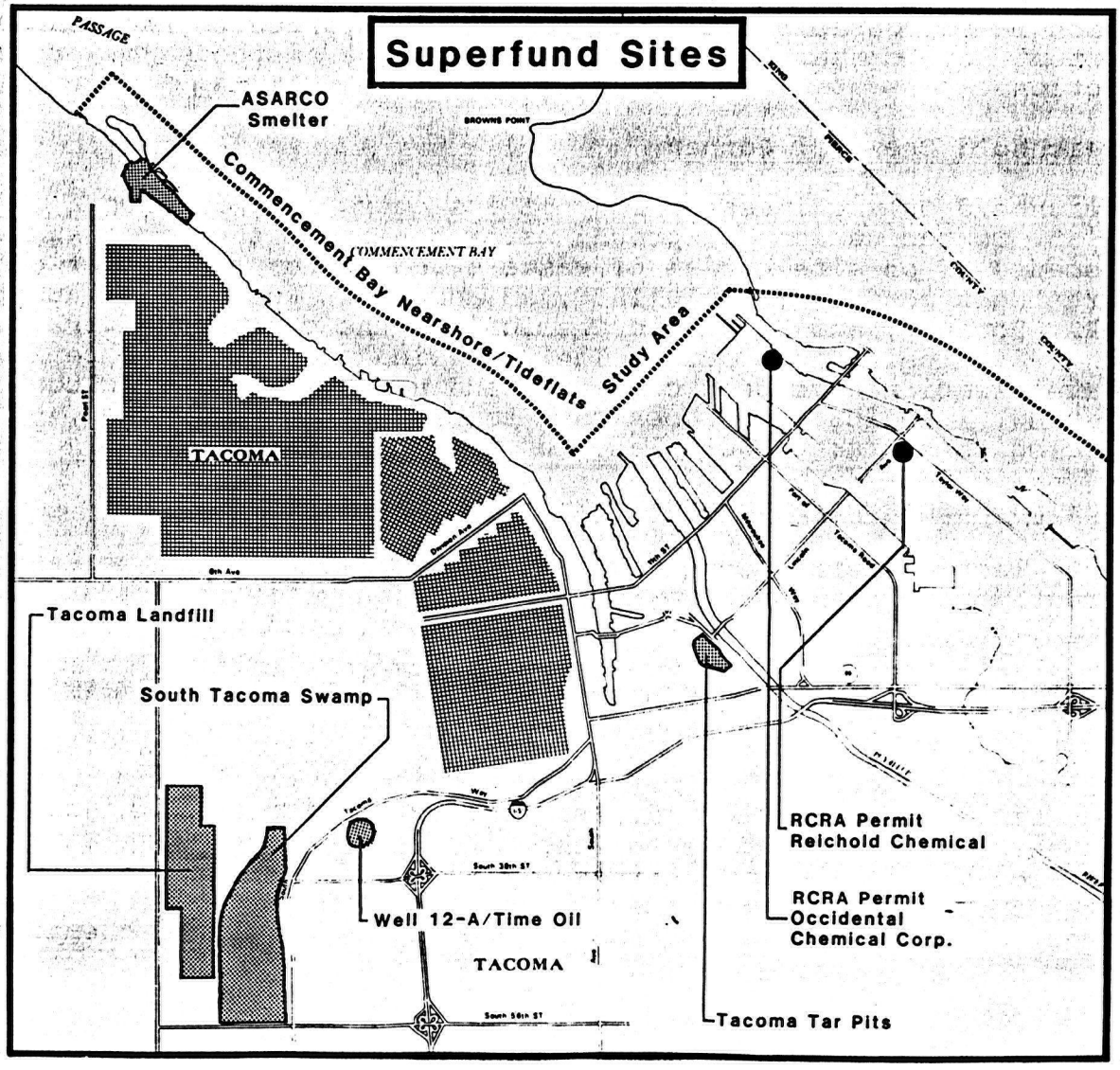
Commencement Bay

Superfund Investigation

APRIL 1987 UPDATE

Commencement Bay was designated as a superfund site in November 1981. This site originally included the Nearshore industrial tideflats (contaminated sediments and fish), deep water disposal site (contaminated sediments), Ruston-Vashon (arsenic), and the South Tacoma Channel (contaminated ground water). In 1983 the deep water disposal site was dropped from the list and the South Tacoma Channel was made a separate site.

This first quarterly UPDATE provides a small amount of background and the latest information on the superfund investigation of the Commencement Bay Nearshore/Tideflats. For your information, related efforts which may affect Commencement Bay have also been included. If you want additional information on this project, please contact the agencies listed above.



WATERWAYS/SHORELINES TASKS

The remedial investigation which was completed August 1985 identified eleven problem areas ("hot spots"), and provided a database and framework for future studies and source control. The feasibility study (determination of options for sediment remedial measures) is now underway. While this study is being completed, the strategy is to remove identifiable sources of toxics. Source control is being carried out by industry, the U.S. Environmental Protection Agency, the Washington Department of Ecology, and the Tacoma-Pierce County Health Department.

SOURCE CONTROL ACTIVITIES

Log Sort Yards

Six log sort yard owners/operators and the Port of Tacoma have received orders from Ecology to determine the extent of soil and ground water contamination by arsenic which is believed to have leached from ASARCO slag used at these sites. Site characterization investigations are being conducted in order to determine the extent of contamination and alternative methods of remedial actions.

Reichhold Chemical Company

Reichhold Chemical ceased many of its operations in Tacoma in 1985. Contamination of ground water beneath the site is suspected because of on-site burial of waste sludges and the use of unlined treatment ponds. In July 1986, an agreement was reached among the EPA, Ecology, and Reichhold Chemical on the correction work to be done in closing the site. The following phases of the remedial investigation have been completed and are under EPA/Ecology review: Indicator Parameters, Preclosure Investigation, Hydrogeologic Assessment Workplan, and the Dioxin Plan.

Marine Resources Program and Storm Drains

The Tacoma-Pierce County Health Department's Marine Resources Program has examined two-hundred and eighty-five storm drains since August 1986. Analysis has been performed on an as needed basis for both conventional and priority pollutants such as heavy metals and toxic organics. Nineteen problem sites have been identified during this period and the Marine Resources Program is currently active in remedial actions at eight of these sites.

The City of Tacoma storm drains were identified as a major source of hazardous substances to the City and Sitcum Waterways. The City of Tacoma Sewer Utilities Division and the Health Department are conducting inspections of businesses in the downtown Tacoma area. The focus of these inspections is to determine chemical

(cont. Marine Resources Program and Storm Drains)

usage, storage and disposal methods in order to locate and identify possible chemical discharge to the storm drain system which will ultimately flow to Commemcement Bay. The auto maintenance and detailing industry has been noted to discharge hazardous chemicals to the storm drain system.

ASARCO Tacoma Smelter

In September 1986, the EPA and ASARCO Incorporated reached an agreement to conduct site stabilization and remedial investigation/feasibility activities at ASARCO's Tacoma Smelter under EPA oversight. Site stabilization activities involve the demolition of various facilities which were associated with copper smelting, and the production of arsenic trioxide and metallic arsenic. Contaminated soils, surface water, and debris will be contained and/or removed from the site. The remedial investigation will determine the nature and extent of on-site contamination and its potential impacts on human health and the environment.

Pre-demolition sampling work has included the cleaning of arsenic and removal of asbestos materials from buildings. Several buildings have undergone sampling to determine the extent of contamination, cleaning, and demolition. The site stabilization activities are expected to continue into the fall.

RUSTON-VASHON TASKS

The Exposure Pathways Study to determine which pathways lead to human arsenic exposure has been completed. The study indicated indoor air and hand washing as the principal routes of exposure of arsenic to young children living within one-half mile of the smelter. Less than 10% of the 435 persons sampled had urine samples with an arsenic concentration above fifty parts per billion(ppb), and less than 3% had a concentration above one hundred ppb. The highest concentrations were found among boys under the age of 6 living within one-half mile of the smelter.

The Health Department has begun a study design which will evaluate the nineteen children with high urinary arsenic levels to determine intervention measures for arsenic level reduction

SOUTH TACOMA CHANNEL

The South Tacoma Channel superfund site in southwest Tacoma contains a contaminated ground water aquifer which is a source of water supply for the City. Originally listed as one site, this site has since been divided into three separate sites: The Time Oil/Well 12A site, the South Tacoma Swamp, and the Tacoma Landfill.

Time Oil/Well 12A

EPA performed a Remedial Investigation and Feasibility Study from 1984 to 1986 to define the extent and source of ground water and soil contamination threatening Tacoma Well 12A. The investigations determined the source of contamination to be from soils on the Time Oil and Burlington Northern properties near the well. The solution chosen from the alternatives presented in the Feasibility Study was to pump the aquifer, treat the water, and discharge it in the storm drains; and to remove and/or treat contaminated soil. As an interim measure, an air stripper (to clean the water) has been installed at Well 12A to insure that no contaminants enter the water filtration supply.

This Summer the Corps of Engineers will oversee the construction of a charcoal filtration unit next to Time Oil to remove solvents from the aquifer at the source of contamination. This change in the method originally planned was made because EPA's contractor demonstrated that this change would provide at least the same environmental protection but would be cheaper to build, operate, and maintain. Contaminated soil will be addressed in the next phase of the project, after the water filtration system is built.

South Tacoma Swamp

The South Tacoma Swamp includes approximately three hundred acres in the southwest corner of the city. The swamp is an environmentally sensitive area because it is located over a major water source (aquifer) for the city. This site has been filled with domestic and industrial wastes since the early 1900's.

The initial characterization of the site was completed by a contractor in January 1987. Phase II, an indepth study of the nature and extent of the problem, and development of alternative solutions is underway.

Tacoma Landfill

The City assumed responsibility in August 1986 for the Remedial Investigation and Feasibility Study of the Tacoma landfill. The landfill is under investigation as a possible source of contamination to nearby private wells. Methane gas levels will also be tested to determine the effectiveness of Tacoma's landfill gas collection system. Ecology and EPA will oversee the work to ensure it fully meets state and federal requirements.

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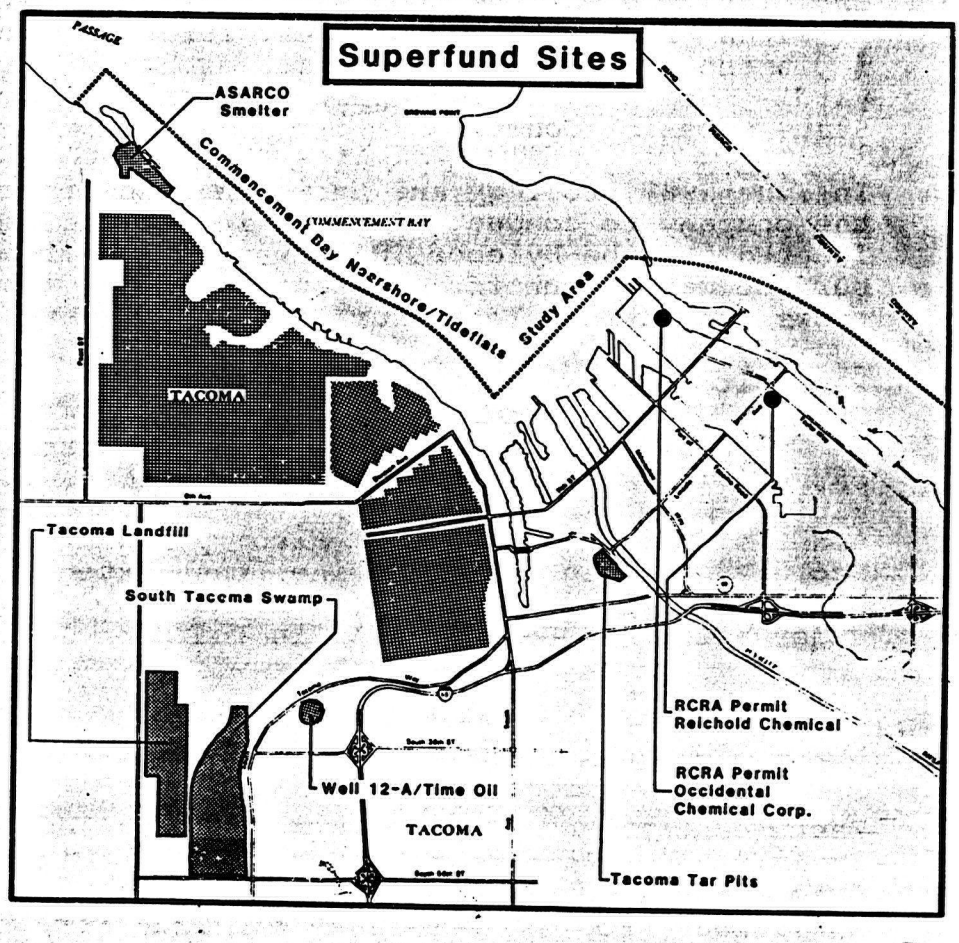
COMMENCEMENT BAY
SUPERFUND INVESTIGATION
AUGUST 1987 UPDATE

The U.S. Environmental Protection Agency (EPA) designated Commencement Bay as a Superfund site in November 1981. This site originally included the Nearshore Industrial Tideflats (contaminated sediments and fish), deep water disposal site (contaminated sediments), Ruston-Vashon (arsenic), and the South Tacoma Channel (contaminated ground water). In 1983, the deep water disposal site was taken off the list and the South Tacoma Channel was made a separate site.

This second quarterly UPDATE provides the latest information on the Superfund investigation and related efforts in the Commencement Bay Nearshore/Tideflats. If you would like additional information on this project, please contact the agencies listed above.



WATERWAYS/SHORELINE TASKS

Feasibility Study Continues

In May 1986, the Washington Department of Ecology's (Ecology) consultant, Tetra Tech, collected sediment cores from 24 stations in the waterways and along the Ruston shoreline. The chemical analyses of these samples, which were delayed by Superfund reauthorization, were completed in July 1987. This data will provide more information on depths of sediment contamination and the relationship between contamination from specific sources and contamination in sediments.

(Feasibility Study cont.)

The completion of this analysis will enable Ecology's consultant to resume work on evaluating alternatives for controlling sources of contamination and cleaning up sediments. A draft report will be available for public review in early 1988.

SOURCE CONTROL

Log Sort Yards

In March 1987, Ecology and the Port of Tacoma reached an agreement on activities at the Wassar Winter site, adjacent to the Hylebos Waterway. It requires the Port to take more surface and ground water samples and to implement measures to control surface water runoff. The initial sampling has been completed and the results are being evaluated by the Port and Ecology.

In June 1987, Ecology and the Pennwalt Corporation reached an agreement on activities at the log sort yard located at 3009 Taylor Way. It requires Pennwalt to conduct further site investigations and to implement measures to control surface water runoff at the log sort yard. This work will be performed under a Consent Decree filed in the State Superior Court.

In June 1987, Ecology and Louisiana Pacific reached agreement requiring the company to conduct further investigations at their log sort yard located on the Hylebos Waterway and to implement measures to control surface water runoff. The company has submitted workplans for both tasks and has completed surface water testing.

Pennwalt

In July 1987, Ecology and the Pennwalt Corporation reached an agreement on activities at the Pennwalt plant site. It requires the company to mitigate arsenic contamination in the uppermost aquifer at the Pennwalt plant site. Pennwalt will also perform further investigations under Ecology oversight to define the extent and types of ground water, surface water, and soil contamination. This work will be performed under a Consent Decree filed in Thurston County Superior Court.

B & L Woodwaste

Waste containing ASARCO slag was landfilled at the B & L Woodwaste site in 1978-79. An Ecology investigation in 1985 verified that surface water runoff was significantly contaminated with heavy metals. In April 1987, Ecology ordered B & L Trucking, the site owner, to control surface water runoff. That order was appealed by the owner to the Pollution Control Hearings Board.

(B & L Woodwaste cont.)

In February 1987, EPA installed and sampled ground water monitoring wells on the site. They contained elevated levels of arsenic. In order to determine whether any of the nearby wells are contaminated, EPA will be sampling drinking water wells within a one-mile radius of the site. Sample results will be available in early fall.

St. Paul Waterway Area Remedial Action

The Simpson-Tacoma Kraft Company is proposing to correct the sediment contamination problem near their Tacoma mill. They want to cap the contaminated area with clean sediments from the Puyallup River. This proposed project would be done in conjunction with several source control activities. These include installing a new secondary treatment plant outfall, controlling contamination sources in the plant, collecting and treating stormwater, and reducing wood chip spillage. The capping project is designed to create new intertidal habitat for bird and marine life.

Simpson is currently applying for several permits required to do the capping. The proposed project is scheduled to begin in November 1987 and should be completed in the fall of 1988.

Marine Resources Program and Storm Drains

The Tacoma-Pierce County Health Department's (Health Department) Marine Resources Program patrols the Tacoma Tideflats and Waterways. During the last quarter 275 storm drains were inspected. As a result of these inspections nine problem sites were identified. The Marine Resources Program and Ecology are currently taking corrective actions at three of these sites.

The City of Tacoma storm drains have been identified as a major source of hazardous substances migrating to the City and Sitcum Waterways. The City of Tacoma's Sewer Utilities Division, Health Department, and Ecology have been inspecting downtown Tacoma businesses to determine chemical usage, storage, and disposal methods. The City's inspections are now completed. Although no major sources of contamination were found, minor problems were encountered at auto maintenance and detailing shops. These businesses are modifying their chemical disposal methods to reduce the amount of hazardous substances entering the storm drain system. Business inspections along the Wheeler-Osgood Waterway, adjacent to the City Waterway, are now underway.

ASARCO Tacoma Smelter

In September 1986, EPA and ASARCO Incorporated reached an agreement on activities at ASARCO'S Tacoma Smelter. The agreement requires ASARCO to stabilize the site, study the extent of contamination, and evaluate possible long-term remedies for the site. Demolition has been underway since late January 1987, and is approximately two-thirds

(ASARCO cont.)

complete. The buildings undergoing demolition were used to control arsenic contaminated emissions from (1)copper smelting and (2)the production of arsenic trioxide and metallic arsenic. Contaminated demolition debris are shipped by Chem-Security Systems, Inc. to their hazardous waste landfill in Arlington, Oregon. Scrap steel is pressure cleaned with water and inspected by EPA for visible contamination before it is transported to Kent, Washington for resmelting.

The EPA has approved a proposal to dispose of wood demolition debris by incineration (burning). Construction for this incineration process is now complete. However, the incinerator must meet rigorous standards of performance contained in the EPA consent order. Before operation, uncontaminated wood will be used to test and fine-tune the incineration process. Only after successful performance testing will wood wastes be burned on site.

RUSTON/VASHON TASKS

In 1986, the Health Department initiated a project to evaluate ASARCO slag and its possible relationship to environmental quality and human health risks. As part of this project, environmental (air, water, and soil) and biological (urine) samples were collected from areas where slag is present. These samples were sent to the University of Washington for chemical analysis. When the analyses are completed, the Health Department will evaluate the data to determine whether people are being exposed to measurable amounts of arsenic from slag.

OTHER INVESTIGATIONS

Time Oil/Well 12A

In July, EPA proposed minor refinements to the original remedy selected for ground water and soil contamination on the Time Oil property in South Tacoma. The property is located about 2,000 feet northeast of Well 12A of the Tacoma well field. The contamination on the Time Oil property and in the ground water below is the remaining source of chemical contamination found in Tacoma Well 12A during 1981.

EPA's original proposal was to pump, treat, and discharge the ground water; remove the most contaminated soil; and flush the remaining contaminants from the soil into the ground water for treatment. Investigations performed since this remedy was selected in June 1985 provided new information which reinforced EPA's earlier decisions. However, this led the Agency to propose refinements in the method used to implement the remedy. The ground water would still be pumped, treated, and discharged, but activated carbon will be used instead of aeration to remove the contaminants. Contaminated soil would still be removed, but instead of flushing the remaining contaminants from the soil, the contaminants will be "vacuumed" from the soil with a vapor extraction system. These design changes were evaluated for their cost

(Time Oil cont.)

and were found to be more efficient and easier to operate than the original design without increasing the overall cost of the remedy.

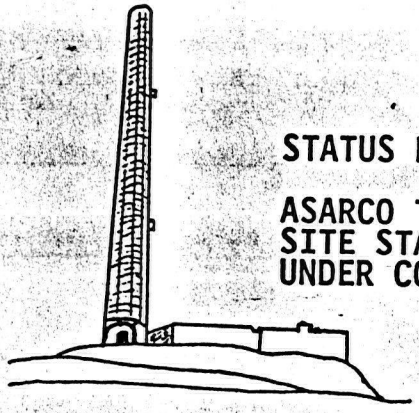
EPA is prepared to begin constructing the ground water system this summer, if that is feasible following consideration of public comment. EPA would then begin actual cleaning of the ground water this fall. The next step in the proposed remedy is treatment and excavation of contaminated soil.

Tacoma Tar Pits

Detailed investigations of the nature and extent of contamination, as well as a decision on cleanup alternatives at the Tacoma Tar Pits, should be completed this year. Completion of the Remedial Investigation and Feasibility Study (RI/FS) report was delayed from early summer because EPA had to add a supplementary ground water report to the study report prepared by the responsible parties. This supplementary ground water report, completed in June, should complete the information necessary to proceed with consideration of alternatives for cleanup. A fact sheet and newspaper notice will be used to notify the public when the study report is complete and available for comment.

South Tacoma Swamp

The contractor for the South Tacoma Swamp's responsible party submitted a proposed outline for the Remedial Investigation and Feasibility Study workplan. EPA reviewed and commented on the proposal and is now awaiting submission of a complete draft workplan for review. Once a complete workplan has been approved, contractors for the responsible party will begin the remedial investigation. EPA will oversee the work to ensure that it meets all Superfund requirements and to make sure the public has an opportunity to be involved.



STATUS REPORT

ASARCO TACOMA SMELTER
SITE STABILIZATION AND REMEDIAL INVESTIGATION
UNDER CONSENT ORDER

AUGUST 1987

In September 1986, the U. S. Environmental Protection Agency (EPA) and ASARCO Incorporated reached an agreement to conduct Site Stabilization and Remedial Investigation/Feasibility Study activities at ASARCO's Tacoma Smelter under EPA supervision. The agreement requires ASARCO to stabilize the site, study the extent of contamination, and evaluate long-term remedies for the site.

This STATUS REPORT provides the most recent information on the smelter Site Stabilization and Remedial Investigation/Feasibility Study activities through mid-August. If you would like more information on this project, please contact Doug Pierce, Tacoma-Pierce County Health Department, 591-6571.

SITE STABILIZATION

During August remaining demolition debris was removed from the hill where the smelter stack is located. This area has been graded and a water drainage system installed to direct rain water runoff to the on-site water treatment system. Other activities have included the demolition of the Godfrey roasters and remaining portions of the No. 1 and No. 2 brick flues. Demolition is now underway at the bunker building.

Other demolition related activities have focused on the loading of brick and concrete demolition debris (220 trailers) to be taken by Chem-Security Systems, Inc. to their hazardous waste landfill at Arlington, Oregon. Ninety loads of steel pressure cleaned with water were taken to Kent for resmelting.

The No. 1 converter to be used as an incinerator for wood demolition debris is being modified to meet the performance standards contained in the EPA consent order. Additional hoods are being installed which will help to reduce emissions. A test burn will be scheduled pending approval of the incineration system and its modifications.

REMEDIAL INVESTIGATION/FEASIBILITY STUDY

During the past month efforts have focused on communications with EPA and ASARCO concerning approval of Task 1-Description of the Current Situation and Task 2-Plans and Management. Task 3-Site Investigations will be finalized upon approval of Task 2. The schedule for on-site investigations may be adjusted due to delays for Task approval, and actual on-site investigations may begin in September.

OTHER INVESTIGATIONS

Tar Pits

Property adjacent to Simon and Son's Metals recycling plant on Portland Avenue is contaminated with coal tars resulting from a coal gassification plant which operated at the site from 1924 to 1950. The remedial investigation fieldwork is now complete; the final Remedial Investigation report will be available soon. The feasibility study of alternatives to remedy problems at the site will be completed this summer. EPA will present the alternatives considered and a recommended alternative to the public by fall.

In addition, EPA is considering whether to propose a demonstration project. The purpose of this project would be to test whether an alternative technology (electric pyrolysis) can be used to heat the contaminated soils and tars, and convert these materials to relatively harmless glass-like marbles rather than containing the waste.

June 1987

STATUS REPORT

ASARCO TACOMA SMELTER SITE STABILIZATION
AND
REMEDIAL INVESTIGATION UNDER CONSENT ORDER

This STATUS REPORT provides the most recent information on the ASARCO Tacoma Smelter site stabilization and remedial investigation/feasibility study activities through mid-June. If you would like more information on this project, please contact Doug Pierce, Tacoma-Pierce County Health Department, 591-6450.

SITE STABILIZATION

During the past month, demolition of the No. 1 pipe treater building (see diagram) was completed. The No. 1 and No. 2 brick flues have been demolished to the arsenic trioxide storage and loading area. The metallic arsenic plant and arsenic kitchens have also been demolished.

Other activities have included the removal of remaining arsenic trioxide in the arsenic storage bin, and asbestos from buildings. Wood demolition debris continues to be transfered to the fine ore bin for storage.

Seven truck loads of brick and other demolition debris, and sixteen trailers of transite (absestos-containing roofing and siding material) were transported by Chem-Security Systems to their hazardous waste landfill in Arlington, Oregon. Sixty-three truck loads of steel, pressure cleaned with water, were taken to Kent for resmelting.

The EPA has approved a proposal to dispose of wood wastes by incineration (burning). Most construction activities for this incineration process are complete. However, the incinerator must meet rigorous standards of performance contained in the EPA consent order. Before operation, uncontaminated wood debris will be used to test and fine tune the incineration process. Only after successful performance testing will wood demolition debris be burned on-site.

REMEDIAL INVESTIGATION/FEASIBILITY STUDY(RI/FS)

This past month, efforts have focused on responding to comments received from EPA for Task 1-Description of the Current Situation, and portions of Task 2-Plans and Management. Final preparations for Task 3-Site Investigations will begin upon approval of all Task 2, and actual site investigations could begin in July or August.

MAY 1987

health

STATUS REPORT

ASARCO TACOMA SMELTER SITE STABILIZATION AND REMEDIAL INVESTIGATION UNDER CONSENT ORDER

This STATUS REPORT provides the most recent information on the ASARCO Tacoma Smelter site stabilization and remedial investigation/feasibility study activities through mid-May. If you would like more information on this project, please contact Doug Pierce, Tacoma-Pierce County Health Department, 591-6450.

SITE STABILIZATION

During the past month demolition of the No. 1 plate treater building (see attached map) was completed. Demolition of the No. 1 pipe treater is now underway. This building is approximately one-half demolished. Major portions of the No. 1 and No. 2 brick flues have also been demolished.

Other demolition activities have included the transfer of scrap wood from demolished buildings to the fine ore bins for storage. Asbestos removal from the buildings is nearly complete. Transite roofing materials have been removed from the metallic arsenic plant and bunker buildings. Most of the arsenic trioxide has been loaded out from the arsenic trioxide storage area. Remaining arsenic dust is being cleaned from the building.

Thirty-one truckloads of brick and other demolition debris, and two trailers of insulation have been hauled to a hazardous waste landfill in Arlington, Oregon. Sixteen loads of scrap steel were taken to Seattle for resmelting. This steel is pressure cleaned with water before loading for shipment and stored in a separate area from uncontaminated scrap steel.

REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS)

This month efforts have been concentrated on responding to comments received from EPA for Task 2 - Plans and Management. Site investigations are scheduled to begin upon approval of the revised Task 2 plans. Initial sampling in Task 3 - Site Investigations may also begin upon approval of this task.

APRIL 1987

health

STATUS REPORT
ASARCO TACOMA SMELTER SITE STABILIZATION
AND
REMEDIAL INVESTIGATION UNDER CONSENT ORDER

This STATUS REPORT provides the most recent information on the ASARCO Tacoma Smelter site stabilization and remedial investigation/feasibility study activities through mid-April. If you want more information on this project, please contact Doug Pierce, Tacoma-Pierce County Health Department, 591-6450.

SITE STABILIZATION

During the past month demolition of the No. 1 and No. 2 exit flues (see diagram) was completed. Other activities have included the demolition of the No. 2 plate treater building near the stack. The stack itself has been sealed with brickwork. Alternatives for final stabilization will be evaluated in the remedial investigation/feasibility study. Asbestos materials were removed from the roof of the No. 1 pipe treater, and along the east and west walls of the No. 1 plate treater buildings. Asbestos was also removed from the No. 3 boiler building (attached to the arsenic trioxide storage and loading area) which has been added to those structures to be demolished.

A 75-foot stack is under construction in the fan building of the arsenic plant. This will be used as part of the incineration process for wood debris generated during demolition. Testing of this process is tentatively scheduled for May. If a clean burn can not be accomplished, wood wastes will be shipped to Chem-Security, a hazardous waste landfill in Arlington, Oregon. Thirty-two truck loads of demolition debris have been shipped to the hazardous waste landfill in Arlington, Oregon. Six truck loads of steel have also been sent to Seattle for resmelting.

REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS)

Revision of Task 2 - Plans and Management is underway. Revised plans have been submitted to EPA for comments. Upon approval of Task 2 on-site investigations can begin. Preliminary work on Task 3 - Site Investigation has begun. This task includes sampling guidelines, acquisition of equipment and identifying laboratory requirements. Site Investigation needs for the waste characterization investigation have been clarified. Sampling may begin in May, upon approval of these plans by the EPA.

March 1987

health

STATUS REPORT
ASARCO TACOMA SMELTER SITE STABLILIZATION
and
REMEDIAL INVESTIGATION UNDER CONSENT ORDER

This STATUS REPORT provides the most recent information on the ASARCO Tacoma Smelter site stabilization and remedial investigation/feasibility study activities through mid-March. If you want more information on this project, please contact Doug Pierce, Tacoma-Pierce County Health Department, 591-6450.

SITE STABLILIZATION

During the past month portions of the arsenic plant transite roofing materials were removed and the No.2 exit flue (see attached map) was partially demolished. Metal roofing material and asbestos insulation in the No.1 plate treater building were removed with all asbestos containing materials scheduled for consignment to a hazardous waste landfill for disposal. The hoppers in the No.1 pipe treater and No.1 and No.2 plate treater buildings have been washed down and vacuum cleaned in preparation for demolition. Demolition will be conducted according to the Site Stabilization Plan and special reports submitted to the EPA. These procedures will include the removal of roof structures to gain access to interior building steel, the use of water to supress dust, and the drainage of waste water to the waste water evaporation system. Demolition has also been completed at the arsenic trioxide storage bunker, Cottrell area change houses, and storage silos.

Lack of a site safety plan for the contractors and on-site workers, and resultant problems of worker exposure to asbestos and arsenic trioxide dust prompted the shut down of site stabilization activities at the smelter March 2, 1987. ASARCO has submitted a comprehensive Health and Safety Plan for site stabilization activities to the EPA which has been approved, and work resumed March 16, 1987.

REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Comments were received regarding Task 2 - Plans and Management. The Health and Safety, and Sampling and Analysis plans are being revised accordingly. Preliminary work on Task 3 Site Investigation, with initial sampling scheduled to begin in April, and Task 6 - Remedial Investigation Reports, which consists of efforts required to produce monthly progress reports and other tracking activities have begun.

February 1987

health

STATUS REPORT
ASARCO TACOMA SMELTER SITE STABILIZATION
AND
REMEDIAL INVESTIGATION UNDER CONSENT ORDER

The U.S. Environmental Protection Agency (EPA) and ASARCO, Incorporated, have negotiated an Administrative Order on Consent under Section 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund). ASARCO has agreed to conduct site stabilization and remedial investigation/feasibility study activities at ASARCO's Tacoma, Washington smelting facility under EPA oversight.

SITE STABILIZATION

The Site Stabilization Plan (SSP) for ASARCO, Incorporated was finalized September 1986. This plan identifies the following facilities for demolition:

Cottrells (electrostatic precipitators), including No. 1 pipe treater, and No. 1 and No. 2 plate treaters

Cottrell powerhouse and change house

Remaining portions of No. 1 and No. 2 brick flues

Silo and pneumatic conveyor system

Arsenic plant (metallic arsenic area, Godfrey roasters, arsenic kitchens, fan building, bunker building, and arsenic trioxide bins).

INVIREX, Demolition Inc. has been selected to perform demolition work. Pre-demolition work included disconnection of remaining utilities at the Cottrells, staging for asbestos removal, installation of berms and piping for water collection (as part of cleaning and dust suppression at cottrel buildings), and cleaning of arsenic from the hoppers. ASARCO has encountered problems with the shipping of arsenic trioxide and is currently employing additional sealed hopper cars to store the arsenic. Air monitoring was expanded as demolition commenced.

Asbestos removal began late January in the No. 1 stack heater building and along the No. 2 brick flue (pipe insulation), with all materials scheduled for consignment to a hazardous waste landfill for disposal. Pre-demolition sampling to identify levels of contamination is being conducted. Demolition of one of the wooden arsenic trioxide storage bunkers took place in early February. Additional asbestos was identified in several buildings, including an extensive tar-like coating on brick flues and building walls. Alternative procedures for possible additional asbestos removal are under investigation. Added precautions will be taken during the demolition of brickwork, including immediate preparation for transportation of demolition debris to a hazardous waste landfill.

REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS)

Draft reports for RI/FS Task 1, describing and summarizing the nature and extent of current conditions at the ASARCO Tacoma Facility, and Task 2, plans and management, developing health and safety, sampling and analysis, data managemnt, and other management plans are being finalized.

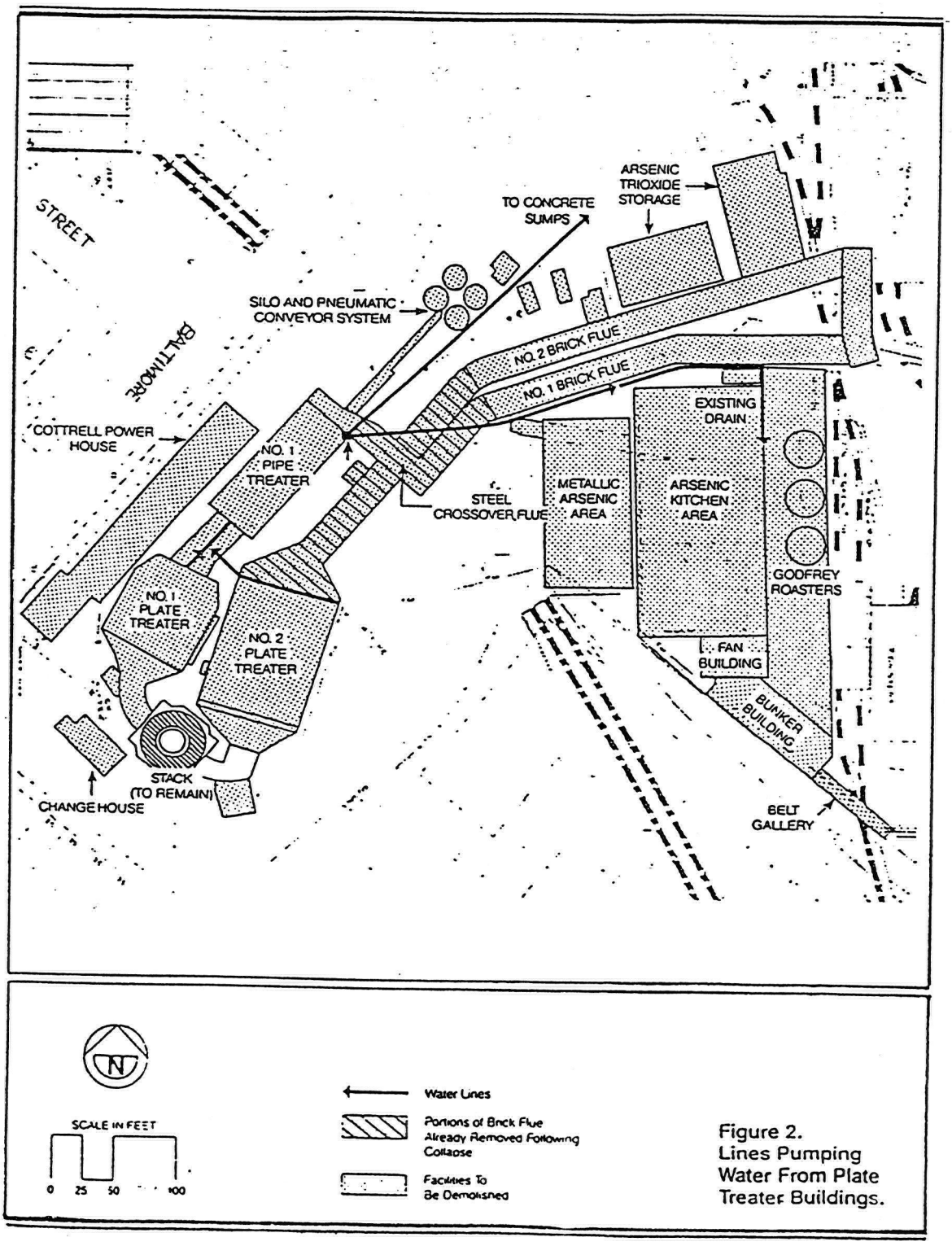


Figure 2. Lines Pumping Water From Plate Treater Buildings.

EPA

September, 1986

FACT SHEET AND NOTICE OF PUBLIC MEETING

ON AN ADMINISTRATIVE ORDER ON CONSENT

BETWEEN THE U.S. ENVIRONMENTAL PROTECTION AGENCY

AND ASARCO, INCORPORATED

The U. S. Environmental Protection Agency (EPA) and ASARCO, INCORPORATED have negotiated an Administrative Order on Consent under Section 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund). ASARCO has agreed to conduct site stabilization and Remedial Investigation/Feasibility Study activities at ASARCO's Tacoma, Washington smelting facility under EPA oversight. This consent order resulted from EPA's concerns about arsenic and heavy metals contamination detected at the facility.

Site stabilization activities at the Tacoma smelter will involve the demolition of various facilities that were associated with copper smelting and the production of arsenic trioxide and metallic arsenic. These activities will include the containment and/or removal of contaminated soils, surface water, and debris. The site stabilization program will also include demolition of the brick flues, the arsenic plant, and miscellaneous structures on the site.

The purpose of the Remedial Investigation (RI) is to determine the nature and extent of contamination on-site and its potential impact on human health and the environment. The RI will include characterization of wastes, groundwater, surface water, soils, air quality, aquatic resources, and slag leaching, as well as receptor identification. The RI will be followed by a Feasibility Study to evaluate alternatives to prevent and/or mitigate potential impacts from the contamination found on the site.

ASARCO has retained Parametrix, Inc., Hart-Crowser, and TRC Environmental Consultants, Inc. to conduct the RI/FS in accordance with guidelines provided by EPA. Project Coordinators from both EPA and ASARCO will be involved in overseeing the RI/FS.

A public meeting will be held on September 23rd at 7:00 pm to explain the order and the work to be done at the facility, and to answer any related questions. The meeting will be held in the auditorium of the Tacoma-Pierce County Health Department, at 3629 South D St. in Tacoma. The order is open to public comment from September 11th to October 2nd, 1986. It is available for review at a number of local sites, which are listed on the back of this page.

Comments on this order should be sent to Carol Thompson of the EPA at:

U.S. EPA (M/S 525)
1200 Sixth Avenue
Seattle, Washington 98101

July 1987

STATUS REPORT

ASARCO TACOMA SMELTER SITE STABILIZATION
AND
REMEDIAL INVESTIGATION UNDER CONSENT ORDER

This STATUS REPORT provides the most recent information on the ASARCO Tacoma Smelter Site Stabilization and Remedial Investigation/Feasibility Study activities through mid-July. If you would like more information on this project, please contact Doug Pierce, Tacoma-Pierce County Health Department, 591-6450.

SITE STABILIZATION

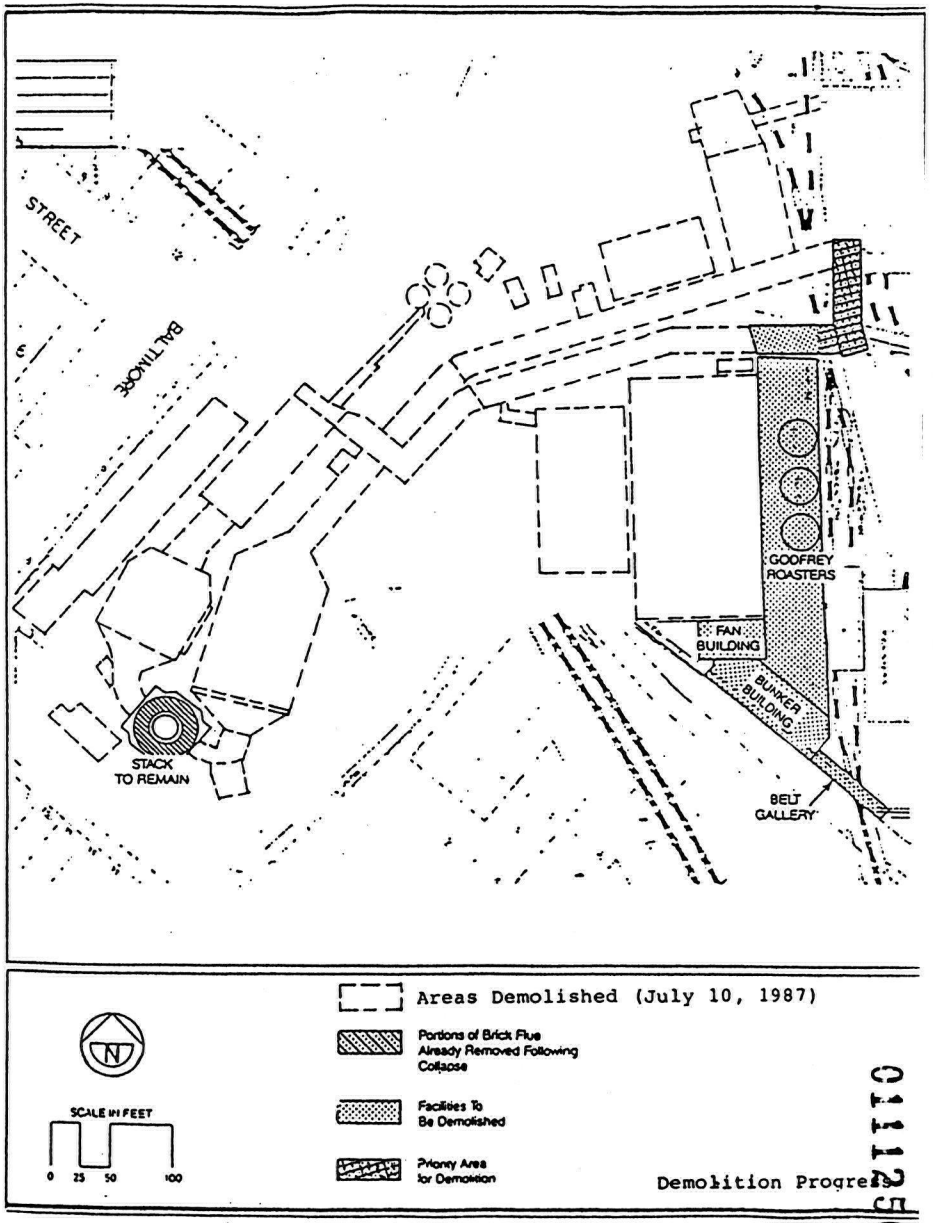
Over the past month, the No. 3 boiler building and Cottrell power house were demolished (see diagrams). The PCV flues were also demolished. The Godfrey roasters are now under demolition.

Other activities have included vacuum cleaning in the bunker building and Godfrey roaster area, loading of steel pressure-cleaned with water for shipment to Kent for resmelting (eighty-one loads), and the transport of brick and other demolition debris by Chem-Security Systems to their hazardous waste landfill in Arlington, Oregon. All asbestos within the site stabilization area has been removed. Wood demolition debris continue to be taken to the fine ore bin, to be crushed and stored in preparation for incineration.

Construction of the wood waste incinerator process is now complete. Instruments, which will measure the amount and types of emissions from burning have also been installed and fine-tuned. A test burn is scheduled for July pending EPA approval of the incineration monitoring devices. If emissions standards cannot be met during this performance test, the incinerator must be modified to meet these standards, or an alternative method for wood waste disposal will be used.

REMEDIAL INVESTIGATION/FEASBILITY STUDY (RI/FS)

This past month, efforts have focused on responding to comments received from EPA for Task 2 - Plans and Management. Final preparations and approval for Task 3 - Site Investigations is expected in July. On-site sampling and investigations could begin in August, upon EPA approval.



June 1987

SUPPLEMENTAL STATUS REPORT

ASARCO TACOMA SMELTER SITE STABILIZATION AND REMEDIAL INVESTIGATION UNDER CONSENT ORDER

ON-SITE WOOD WASTE INCINERATION PROCESS

In September 1986, the U.S. Environmental Protection Agency (EPA) and ASARCO Incorporated reached an agreement to conduct site stabilization and remedial investigation/feasibility study activities at ASARCO's Tacoma Smelter under EPA supervision.

Site stabilization activities which have been underway since January 1987, involve the demolition of plant facilities which were associated with the control of arsenic contaminated emissions from copper smelting and the production of arsenic trioxide and metallic arsenic. The Remedial Investigation/Feasibility Study (RI/FS) will determine the nature and extent of site contamination and evaluate cleanup alternatives. The RI/FS is scheduled to begin this summer.

Many types of debris are being generated during demolition. This debris includes brick, asbestos-containing materials (roofing, insulation), flue dust, steel, and wood. All materials, except steel and wood, which have been tested and identified as contaminated are shipped by Chem-Security Systems, Inc. to their hazardous waste landfill in Arlington, Oregon. Scrap steel is pressure cleaned with water and inspected by EPA for visible contamination before loading for shipment to a steel mill in Kent, WA for resmelting. As proposed in the Site Stabilization Plan, wood debris is scheduled to be incinerated on site.

It is estimated that about 2,500 tons of wood will be generated during demolition. As part of the Site Stabilization Plan, the EPA has approved the proposal to dispose of wood wastes by incineration (burning). Pending a successful pilot test, the wood will be incinerated in a converter, a production vessel at the plant formerly used to convert copper matte to copper metal. It is estimated that this incineration process can burn 1.1 tons of wood per hour, or 26.4 tons per day.

THE INCINERATION PROCESS

It is expected that the incineration of wood will be a continuous, 24 hour-a-day process. Prior to the beginning of the process, the incinerator will be heated with natural gas to the operating temperature (1600-1800°F). Once this temperature is reached, it will be maintained on a continuous basis to promote efficient and complete combustion of wood debris with the least amount of emissions released.

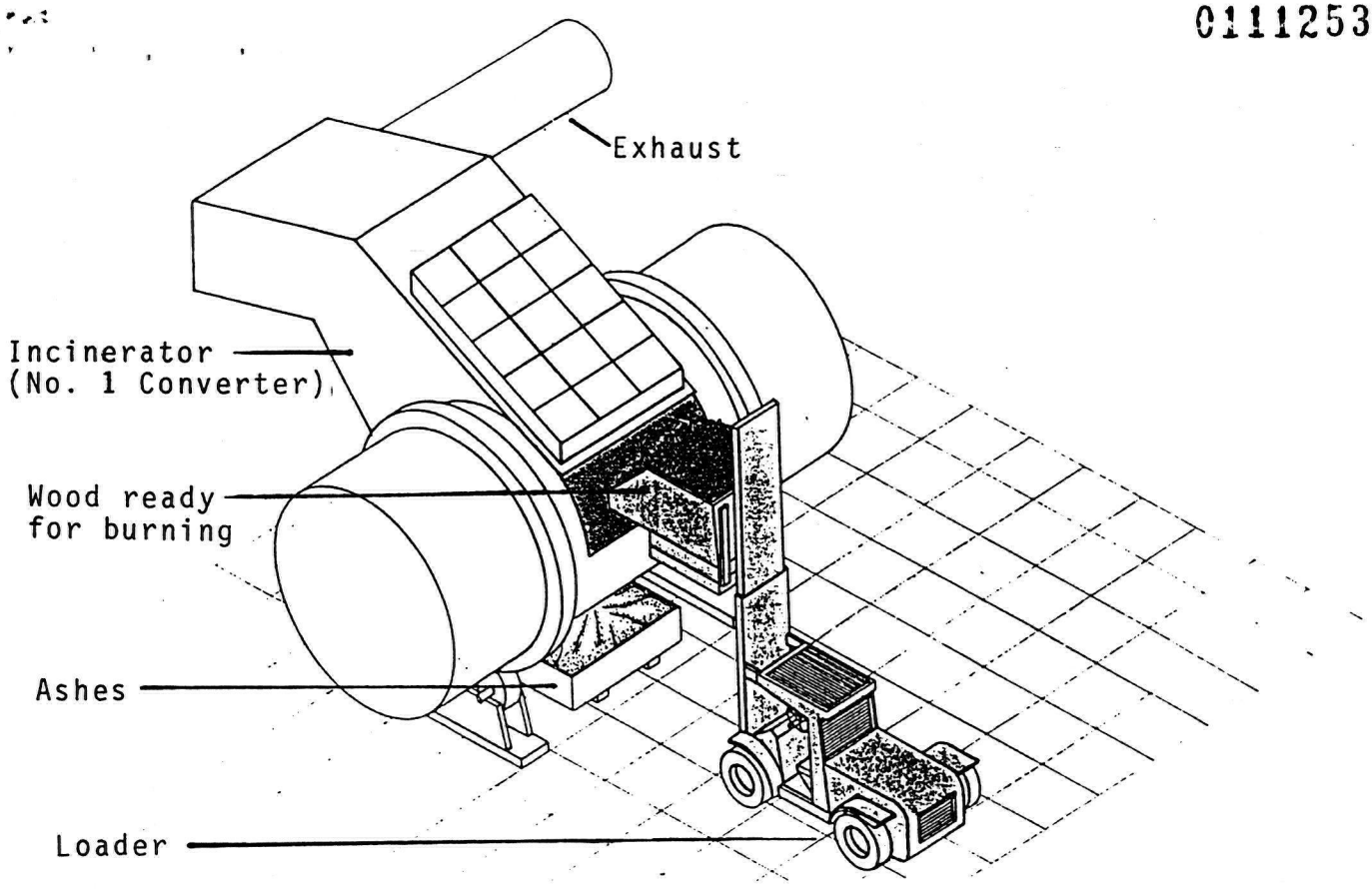
Wood from demolished buildings is being crushed and stored on-site in the fine ore bin building. The wood will first be loaded into a specially designed feed hopper (see diagram) for easy transfer into the converter. Gas burners will be used to initially ignite the wood and maintain burning. After a load of wood is completely burned, another load will be added. During incineration, exhaust gases and other particulate emissions will be contained by the primary hood ventilation system and transported to a high efficiency (99.9%) cloth filter (baghouse) for particulate collection.

PERFORMANCE TESTING

Although EPA has agreed to the proposed method of wood waste disposal, the incineration process must meet rigorous standards of performance contained in the EPA consent order. The proposed control system is equivalent to the best available control technology. To ensure that the incinerator and controls are operating properly and within the emission limits, a number of tests will be performed. These include tests of particulates and gases as they leave the stack; continuous opacity monitoring; and temperature and pressure tests of exhaust gases at several points in the system.

Before operation, uncontaminated wood debris will be used to test and fine tune the incineration process. Only after successful performance testing will wood demolition debris be burned on-site. If the emission standards are not met during the performance test, the incineration process will either be modified or not be used for wood waste disposal. An alternative disposal option is to transport these wood wastes to an approved hazardous waste landfill.

If you would like more information about this incineration process, or have other questions regarding ASARCO's site stabilization activities, please contact Doug Pierce, Tacoma-Pierce County Health Department, 591-6450.



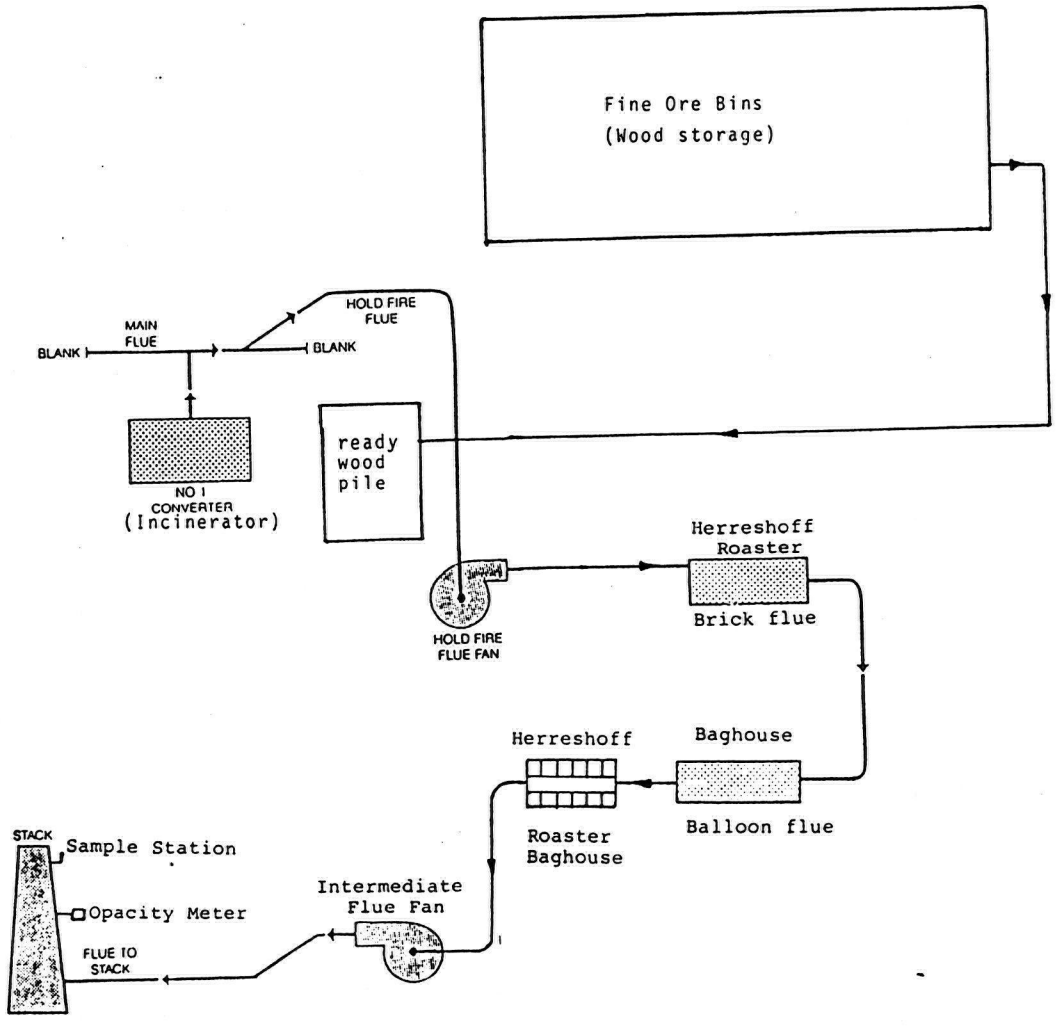


Diagram of Wood Waste Incineration Process

A FACT SHEET

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THE RISK TO PUBLIC HEALTH

Arsenic, in its inorganic form, has long been known as an acute poison to humans when ingested in relatively large amounts. However, more recent data have shown that exposure to lower levels of arsenic results in skin and lung cancer in humans. For cancer-causing substances, such as inorganic arsenic, scientists are unable to identify a safe level of exposure. Therefore, EPA and other federal agencies have taken the position that cancer may occur at any level of exposure to arsenic no matter how low, with the risk of cancer increasing as exposure increases.

For the purpose of developing its arsenic regulation, EPA has determined that the ASARCO smelter should be controlled at a minimum to the level that reflects best available technology (BAT) and to a more stringent level if necessary to prevent health risks that are unreasonable. This approach requires that EPA estimate the cancer risk remaining for the population after these controls are in place and then determine if the remaining cancer risk is acceptable, taking into account the costs and technical feasibility of reducing the risk further.

To calculate this remaining risk, EPA combined data from two different types of analyses. The first analysis provides what is known as the unit risk number. This number is defined as the lifetime lung cancer risk that would occur in a population which is exposed throughout their lifetime to one microgram per cubic meter of arsenic in the air they breathe. (A microgram is equal to about 1/28 millionth of an ounce and a cubic meter is about the same as a cubic yard. Therefore, one microgram per cubic meter is about 1/28 millionth of an ounce of arsenic in a cubic yard of air.) This unit risk number is calculated by using data from studies of workers who were exposed to arsenic in smelters and at a pesticide manufacturing plant.

The second analysis estimates the exposure for residents living near the smelter. This is done with mathematical models. Utilizing data on emissions of arsenic from the ASARCO smelter as well as information on weather and geographic conditions, a dispersion model is used to calculate the concentration of arsenic expected at over one hundred locations within approximately 12 miles of the smelter. Combining these exposure estimates with population data from the Bureau of Census gives an estimate of the number of people exposed to various concentrations of arsenic within about 12 miles of the smelter. This 12 mile distance was chosen because the mathematical models used tend not to be as accurate at a greater distance. (While our analysis stops at about 12 miles, it must be realized that risk from exposure to arsenic emissions extends beyond this distance, though at a reduced level.)

By multiplying the unit risk number and the estimated exposure for people living around the smelter, it is possible to make an estimate of the cancer risks expected in the ASARCO community as a result of arsenic exposure. For those people living within one mile of the smelter, the lifetime cancer risk remaining after controls have been installed would be about 0.2%. This is in addition to the normal lifetime cancer risk of about 20% that would be expected without arsenic exposure. Within the 12 mile area this excess life- time cancer risk, after controls are installed, would be 0.004%. Another way of expressing this risk is by using lung cancer incidence numbers. Lung cancer incidence is the expected number of lung cancer cases that would result each year from arsenic exposure within 12 miles of the smelter. Without additional controls, the estimated lung cancer cases are approximately 4 per year. After the proposed controls were installed, the estimated number would drop to approximately one per year. To keep this in perspective, these numbers should be compared to the several hundred lung cancer deaths that are normally expected each year in a population the size of that found within this 12 mile radius.

UNCERTAINTIES IN RISK CALCULATIONS

The process of calculating these risks for the population around the smelter involves many assumptions and uncertainties. So while these estimates of risk are a useful tool in the decision-making process, MUCH CAUTION SHOULD BE EXERCISED TO AVOID RELYING TOO HEAVILY ON THE NUMBERS PRESENTED ABOVE. These numbers have considerable uncertainty for the following reasons:

1) MODELING ASSUMPTIONS - Measurement of air concentration of arsenic around the ASARCO plant have not been done thoroughly; however, the measurements that have been obtained indicate lower concentrations than those predicted by the dispersion model. Arsenic emissions data from the smelter used in the dispersion model are not precise. In many cases these emission rates were based on assumptions rather than actual emission tests. This is especially true for fugitive emissions which are very important in calculating concentration yet are very difficult to measure. Also, estimates of how these arsenic emissions mix with the ambient air are hard to determine because of the complex geography and lack of specific weather data for the area around the smelter. These problems may explain why the ambient monitoring around the smelter shows lower concentrations of arsenic than EPA's dispersion model predicts.

2) EXPOSURE ASSUMPTIONS - A principal assumption is that all persons living within the 12 mile radius of the smelter will remain in the same location for a 70 year lifetime and are exposed to a constant, average concentration of airborne arsenic. This assumption could result in large overestimates of arsenic exposure for those who spend a lot of time away from their residences and in underestimates for workers employed at the smelter. Additionally, exposure to arsenic from resuspension of arsenic bearing dusts from city streets, empty lots, and playgrounds has not been taken into consideration.

3) UNIT RISK NUMBER - Because arsenic is a carcinogen, it was assumed that a linear relationship exists between exposure and risk. Simply stated, this means that a person who inhales one microgram of arsenic per cubic meter of air is one-tenth as likely to get cancer as a person who inhales ten micrograms per cubic meter. If the relationship between exposure and risk is not linear, a different unit risk number could result which would in turn change the lung cancer risk estimates made for the population around the smelter. It is unlikely that the actual cancer risks would be higher than those predicted by EPA, but they could be substantially lower.

EPA is now in the process of reviewing the data used in calculating risk estimates, especially those data which relate to arsenic emissions and dispersion modeling. If necessary, new data will be developed in these areas to permit EPA to better estimate risks to the smelter community.

A FACT SHEET

ARSENIC CONTROLS

WHY THE SPECIAL ATTENTION FOR ASARCO'S TACOMA SMELTER?

The ASARCO smelter in Tacoma uses copper ore concentrate with a much higher arsenic content than any other U.S. copper smelter. Arsenic makes up about four percent of the ore at Tacoma; no other copper smelter uses ore concentrate with more than 0.6 percent.

Arsenic is a commercially valuable by-product of the Tacoma operation. The smelter is the only U.S. manufacturer of arsenic and arsenic trioxide; it produces one-third of all arsenic used in the country.

WHAT IS EPA PROPOSING FOR THE TACOMA SMELTER?

There are three principal phases in the smelting process that transforms raw ore into blister copper. (1) The ore is first run through a roaster as an initial step in gradually removing impurities. (2) What emerges from the roaster is run through a reverberatory furnace. (3) The molten mixture from the furnace is then sent to converters. EPA seeks to reduce the emissions of arsenic that escape capture in the third step, e.g., the converting process.

EPA is proposing that additional hoods be placed on the converters so that ASARCO would capture and collect "fugitive" arsenic given off during this third stage in removing impurities from the copper.

The EPA proposal would include a standard expressed in terms of equipment specifications for the collection device. The criterion used by EPA in designing this standard is what is called the "Best Available Technology", or BAT. BAT means the best controls available considering economic, energy, and environmental impacts. BAT is the minimum level of control which EPA would require for hazardous air pollutants such as arsenic.

IS THE PROPOSED "BEST AVAILABLE TECHNOLOGY" INDEED THE BEST ASARCO CAN DO?

One of the chief issues during the public hearing/public comment process is whether EPA's proposed standard does, in fact, represent the very best control technology available to ASARCO. Are there other operations or practices at the smelter where additional control can be employed to reduce emissions of arsenic?

There have been discussions among air pollution control engineers involved in the ASARCO-arsenic issue that other measures may exist which can be applied to produce even greater reductions in ASARCO's arsenic emissions. One example which has been suggested has been baghouse controls on the reverberatory furnaces which may play a major role in reducing the amount of arsenic which now escapes.

Other suggestions have been made that ASARCO may be able to reduce fugitive emissions throughout the smelter and that consideration be given to require ASARCO to use ore concentrate with a lower arsenic content. The feasibility of such requirements and the quantification of emission reduction and cost is the subject of an ongoing EPA task force effort. Comments from the public are encouraged and welcomed.

WHAT WOULD EPA'S PROPOSED CONTROLS COST ASARCO?

EPA has estimated that it would cost ASARCO $3.5 million to install the hooding equipment required by the proposed controls, and that the annual cost to operate the equipment would be $1.5 million. Operation of the equipment is expected to increase the smelter's annual energy consumption by one-half of one percent over the 2.9 billion kilowatt hours of electricity the smelter now uses each year. EPA has estimated that its proposed controls could result in an increase in the price of copper by approximately 0.8 percent if the company chose to maintain its normal profit margin. The cost may be higher if additional or alternative controls are found to be necessary.

IS SHUTDOWN OF THE SMELTER A POSSIBILITY?

Yes, it is a possibility.

Regulation of hazardous air pollutants such as arsenic is required by Section 112 of the Clean Air Act. The only absolutely safe approach to setting standards for substances which cause cancer would be to set a standard that would reduce the emissions to zero. In setting standards previously for two other cancer-causing air pollutants, asbestos and vinyl chlorides, EPA promulgated standards that did not require shutdown of facilities that released those pollutants to the ambient air.

EPA can impose standards that go beyond Best Available Technology if, in the language of the statute, it is necessary "to protect the public health....with an ample margin of safety."

Living in the smelter's shadow

PRO: Many Rustonites cite smelter's benefits

By JOHN GILLIE

RUSTON — "Baloney."

This epithet spoken politely but firmly was Owen T. Gallagher's considered opinion of the Environmental Protection Agency's warnings this week about the hazards of living in the shadow of the Asarco smelter's smokestack.

All of this half-mile-square town of 600 residents lies within the 1-mile radius of the smelter — the area where the EPA said the chances of contracting incurable lung cancer are 33 percent higher than elsewhere.

Owen Gallagher scoffs at the EPA's warnings and the call by some environmentalists for the agency to tighten its restrictions on cancer-causing arsenic smelter emissions to levels that could force the smelter to shut down.

"They're going to kill the goose that laid the golden egg," said Gallagher, seated in his neat brick home just five blocks from the smelter gate.

The smelter, the town and its residents, he said, have enjoyed a mutually comfortable relationship for more than 90 years.

Gallagher well knows how the three are intimately connected. The lives of Gallagher, the Asarco smelter and this town near Point Defiance Park are intricately intertwined.

Gallagher was born here on North Winnifred Street, four blocks from the smelter gate, more than 70 years ago. He worked for Asarco for 43 years, starting as a laborer in the copper smelter and retiring five years ago as personnel manager.

Gallagher is a legend in town politics. He founded the volunteer fire department. He served on the Town Council for 15 years. He was mayor for 20 years before stepping down two years ago.

During his years of public service, said Gallagher, Asarco was good for Ruston and its people. The smelter provided as much as 70 percent of the town's budget, furnished steam to heat the Ruston Elementary School and handsomely paying jobs to support a number of its residents.

Environmental restrictions that could threaten the smelter's very existence, said the former mayor, are "just a bunch of foolishness."

Living by the smelter does pose some minor inconveniences, he said, but the benefits far outweigh them.

Just recently, he said, after the smelter restarted its furnaces that were shut down because of the threat of a strike that didn't materialize, the area was hit with a sooty fallout. It landed on cars in Ruston and on boats at the nearby Tacoma Yacht Club.

Owen Gallagher

"All you've got to do is go out and give your car a quick wash," he said. "If you leave it on, it might eat into the paint."

But the smelter has been good about taking care of any damage. "The smelter has painted a lot of cars over the years," he said.

The payoff for the "inconveniences," he said, are lower taxes and better city services than in neighboring Tacoma.

Twice-weekly garbage service here is free, he said. With the exception of a single street, all of the town's alleys and streets are paved without the need for local residents to pay for them directly. The town employs a seven-member (two full-time and five part-time) police force, a relatively large force for a town of Ruston's size, he said.

More threatening than the soot, the EPA said, is the 310 tons of airborne arsenic the smelter emits each year.

Gallagher dismisses arsenic emissions, too.

"When you're in a bakery, you expect to get some flour on you," he said.

While the smelter's chief arsenic-containing byproduct, arsenic trioxide, bears an uncanny resemblance to cake flour, its effects are not nearly so benign, said the EPA.

The arsenic emitted by the smelter, the EPA estimated, causes an additional four cancer deaths yearly in the Tacoma metropolitan area.

If EPA Administrator William Ruckelshaus adopts his proposed arsenic limitation rules, those arsenic-related cancer deaths in the Tacoma area are expected to drop to one.

But Ruckelshaus, in the first test of his new regime at the embattled agency, has asked those touched by the smelter's arsenic emissions to tell him if his proposed standards represent an acceptable risk level.

A hearing is set for Aug. 30 in Tacoma.

If Gallagher and other Ruston town officials are typical, then many may speak out against even further restrictions that could close the 570-employee smelter and cut off its annual $23 million payroll.

Mary Joyce and her husband have raised their six children figuratively in the smelter's backyard.

Her home's picture window neatly frames the smelter's 580-foot smokestack, a structure just 29 feet shorter than Seattle's Space Needle.

Her home's elevated front yard is landscaped with chunks of the black, obsidian-like slag from the smelter.

Joyce, a town councilwoman, said she knows of only one family among Ruston's population that has made any strong protest about smelter emissions.

Those who are bothered by the smelter's emissions, she said, either don't buy in Ruston or they move away.

"I think that if anyone felt that strongly about it, they would move. A person shouldn't have to live in a community if they're not happy with it," she said.

Ruston Mayor Peter Brudevold believes the populace here would agree with him that the smelter's emissions pose no major problems.

"I think the greater majority would have to agree with me that there are no problems," he said.

Deputy Clerk Norma Doucette said she's unaware of any adverse effects of the smelter.

"We have pretty lawns, and none of us have died from it (the emissions) yet that I know."

"A lot of people blame the smelter for any problems that they have," said Ruston Clerk-Treasurer Loretta Prettyman.

Not all the people of Ruston have the same high opinion of the smelter and its emissions.

Larry and Jean Wingard stirred the displeasure of some of the town hierarchy by filing suit against the smelter for damage to their car and their organic vegetable garden.

The couple lost the trial of their suit, but they now have pledged to carry the fight against the smelter pollution onward.

"As long as there's a danger," she said, "we'll be there to fight it."

Jean Wingard said many of those who welcome the smelter are unaware of the level or the dangers of the pollution. They have been blinded, she said, by the monetary rewards of working at the smelter or by the services the smelter's taxes buy.

"They're getting paid down there to live and work in it," she said. "I'm not getting paid to breathe it."

CON: Vashon residents: Fallout 'won't let us enjoy our land'

By JEFF WEATHERSBY

VASHON ISLAND — "We are common people, not rabble-rousers," said Michael Bradley, a Vashon Island construction worker leading a group threatening to take Asarco Inc. to court over its toxic emissions.

"I'm not for the loss of jobs," Bradley was careful to explain.

"Until they have analyzed the vegetables they have grown, it seems to me they worry themselves needlessly," Lindquist said.

"In all the years we've here and have taken soil and vegetable samples and taken urinary arsenic levels in people, I never have seen values high enough to worry about," Lindquist added.

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Michael Bradley

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"I'm not for the loss of jobs," Bradley was careful to explain. "I'm a construction worker. I appreciate industry and trades."

But Bradley said he and others want the smelter to stop spewing arsenic and other chemicals.

Bradley is chairman of a group tentatively named Island Residents Against Toxic Emissions — IRATE for short — that is preparing to battle on several fronts the corporate bastion symbolized by the smelter across Commencement Bay.

The major concern of the group is the toxic arsenic and cadmium deposited on the island, apparently from the smelter.

"Numerous people who staked their life savings on a place and a home are finding they can't enjoy the land because of the emissions of the Asarco plant," Bradley said.

Many residents bought acreage in rural Vashon Island so they could raise their own vegetables, hogs and turkeys, Bradley said. And, he said, they purchased the land long before anyone knew Asarco may be responsible for an island pollution problem.

Bradley and other members of the group now cite a recent Tacoma-Pierce County Health Department study of areas around the smelter which found that soil on Vashon and Maury islands has the second-highest levels of cadmium and arsenic. The highest level was found in Tacoma's North End.

Vashon residents also are awaiting results of tests to determine the level of arsenic in the urine of their children.

Smelter Manager Larry Lindquist denied the smelter emissions were harming residents of Vashon.

"Until they have analyzed the vegetables they have grown, it seems to me they worry themselves needlessly," Lindquist said.

"In all the years we've here and have taken soil and vegetable samples and taken urinary arsenic levels in people, I never have seen values high enough to worry about," Lindquist added.

"The studies don't support the contention there are harmful health effects," he said.

Bill Tobin, an attorney living on Vashon, said the group must decide whether to file a class-action suit or individual civil suits against the smelter.

Because of the high smokestack and prevailing wind directions, Tobin explained, "We are the dumping ground for these pollutants without any benefits (such as jobs or Asarco tax payments)."

The attorney said he is not discouraged by a recent Pierce County Superior Court case in which Ruston residents Larry and Jean Wingard failed to convince a jury that smelter emissions had poisoned their garden.

Tobin said the case had "several technical defects" in its presentation.

He said the Vashon case would be filed in King County instead, where he believes a jury may be more sympathetic.

The attorney also noted that the Wingards moved into Ruston, where they knew the smelter was already operating.

"This (Vashon) is a rural community, not heavily populated, where a lot of people rely heavily on gardens for food," Tobin said.

Tobin also said preliminary results of a computer study indicate property values on the southern part of Vashon may be adversely affected by the smelter's toxic reputation.

Some real estate agents also have said some prospective buyers will not look at property on the southern part of the island because of the smelter emissions, Tobin said.

Commenting on a new Environmental Protection Agency proposal that would order Asarco to install new air-pollution control equipment, Tobin said he is both encouraged and disturbed by the EPA.

Tobin said he is happy the public will have an opportunity to comment on the proposal. But he said pollution equipment designed to capture arsenic escaping into the Ruston area may mean more toxic metals may escape through the stack and end up on Vashon.

Bart Klein, another attorney living on Vashon who is active in IRATE, said he thinks Asarco is simply "milking" the situation in the Tacoma area as much as it can while it prepares to shift its operations to other parts of the world.

Klein said the smelter has been allowed to violate air pollution regulations for years.

"How many times," he asked, "can you go past go without stopping?"

Staff photo by BRUCE LARSON

Healthful coexistence?

Seven-year-old Tonia Gibson is among dozens of school-age children living in the path of emissions from the Asarco smelter who will be tested in a Tacoma-Pierce County Health Department study during the next six weeks to determine the levels of arsenic in their bodies and its effects on their health.

TACOMA NEWS TRIBUNE JUNE 10, 198

After Asarco

Despite setbacks, Ruston residents remain optimistic

By Mike Merritt
The News Tribune

The blackened 572-foot Asarco stack towers over Ruston's landscape, a symbol of the company's influence over the town's past and future.

The Asarco smelter's 1985 closure, blamed on the falling price of copper and the rising costs of environmental controls, dealt the town a severe blow. For most of a century the plant had employed Ruston's breadwinners. Taxes on the plant paved the town's streets and paid the salaries of its police officers.

Strapped for cash after the plant shut down, Ruston laid off most of its police force. For the first time in its history, the town had to charge for garbage collection.

Yet despite financial problems, the town's residents have kept up appearances well and they fiercely reject any notion Ruston should merge with its much larger neighbor, Tacoma. Crime has not presented major problems. A volunteer fire department was reorganized after the town could no longer afford to pay Tacoma for fire protection.

"We're doing pretty good," said Mayor Peter Brudevold. "We're in the black and have money in the bank, and that's all that matters."

Ruston's future is being shaped, however, by forces over which its residents have little control. Ruston is a two-company town: Asarco and the federal Environmental Protection Agency.

Asarco, which is slowly demolishing parts of the big plant on the bluff overlooking Commencement Bay, still owns what development officials consider a priceless industrial site. From its deep-water dock exports could be shipped around the world. Upland could be prime office-park sites.

But the EPA still rules the site. The smelter is a federal Superfund site under control by the EPA, which is overseeing the cleanup of arsenic and other chemicals spewed from the stack over the years.

The ground could harbor a toxic soup that will require as many as five years and millions of dollars more to clean up, the EPA said.

Yet optimism remains high in this blue-collar community, whose residents know hard times. The town was founded at the turn of the century to house the workers who worked at the smelter built by W. R. Rust.

Owen Gallagher literally followed his father's footsteps into the smelter in 1934 — when the smelter employed 1,462 — and retired after 43 years as the company's personnel manager.

When Gallagher was growing up in this little half-mile-square town boxed in by Tacoma, Commencement Bay and Point Defiance Park, Ruston had a population of more than 1,000, a "melting pot" of foreign nationalities. The streets would fill with men summoned by the plant whistle, which doubled as the town's fire alarm.

The town had five grocery stores and a company-built clubhouse for the townspeople. If the city needed something built or fixed, the company would send up a crew to do the work.

Through World War II, in fact, nearly all the smelter's workers lived within sight of the big brick stack, called the second-largest in the world.

But the fall came in 1984, when the long-troubled smelter owners announced the plant would close. By then Asarco workers or retirees only numbered about two dozen out of a population of about 700, but the closure still sent shock waves through the town and the Tacoma community, already hard-hit by the loss of basic industry.

The closure meant the loss of 550 jobs, most held by men who knew little other than heavy industrial work.

"I fought like the dickens to keep it from closing, not for myself, but for the young folks," said Gallagher, who served as the town's mayor for 20 years. "A town is built on employment. A town is a town because of labor."

Gallagher and many other residents blame the EPA and other environmental agencies for the smelter's demise. They remain fierce defenders of the plant against claims the air, water and surrounding town were polluted by the smelter's emissions.

Gallagher calls arsenic "nature's insecticide," disputing suggestions the metallic element can cause cancer.

The plant, however, has long come under fire from environmental organizations and many residents, including those on Vashon Island, who assert emissions from the plant were toxic and still pres-

Please see Asarco, B2

Bruce Larson/The News Tribune

Former Ruston Mayor Owen Gallagher blames the EPA for the demise of the Asarco smelter. Beside him is his wife, Georgeann.

Co ho co ne

By Kathlee
The News Tr

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Asarco

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ent a health hazard.

The smelter produced many metals, including gold, copper and silver. Although the plant produced arsenic during smelting processes, the company long insisted the emissions were harmless. Researchers have found no evidence of unusual numbers of cancer cases linked to the tons of arsenic and other heavy metals that poured from the stack over decades.

When the plant finally closed, business taxes collected by the town plummeted by $40,000 a year. The smelter's property value shrunk to just a fraction of its former $28 million.

But residents pulled together, despite fights over layoffs of city employees and how to provide fire protection. After the town was forced to cancel its firefighting contract with Tacoma, the volunteer force was resurrected and now numbers 15.

The smelter whistle that used to bring firefighters running has been replaced with pagers, courtesy of a $5,000 donation from the company.

The fire department has become what Chief Gerald Tritt calls "one of the focal points of town."

Don Torbet and his wife, Beth, run the corner grocery-butcher-deli-soda fountain just up the street from the town hall.

"I wanted to get back into a neighborhood situation, work with my wife and spend more time with my kids. It looked like what I wanted. I'm happy," he said. "Most people know everybody. As a whole, the people are more friendly than in larger towns. If you don't make the town council meeting, you'll hear about it the next day."

What's on the mind of Torbet and most other Ruston residents these days is what can be done to attract business to the community.

Townspeople aren't interested particularly in another "smokestack" industry, but they talk about an office park combined perhaps with some manufacturing facility that could make use of the docks at the foot of the hill.

"It's an extraordinary piece of ground in a unique natural setting," said Ryan Petty, director of the Tacoma-Pierce County Economic Development Board. "When it's cleaned up, I would think we could really view it as what we call a sexy site. It's unique."

Petty has begun preliminary talks with city officials about rebuilding the site. Uses might include a research park and residential development as well as industrial concerns — perhaps even a museum to showcase Tacoma's industrial heritage, he said.

"I think everybody realizes this is a valuable piece of property," said Curtis Dungey, an Asarco environmental scientist overseeing the cleanup of the site. But the company cannot offer the town any guarantees about what form future development might take until the land is free of contamination.

Under way now is the demolition of the most highly contaminated sections of the plant near the stack and down the hill, a job which will take most of a year. Subsequent studies will determine what kinds of cleanup activities will be needed.

"The way I envision it, there probably won't be a lot of activity down there developing the site as a manufacturing facility, or port, until some of these things are answered," Dungey said. "It's going to be a couple of years before they (the EPA) come up with a final report saying this is what you must do."

Bellevue bid for S has regional offic

By Mike Merritt
The News Tribune

SEATTLE — Bellevue Mayor Cary Bozeman will likely face some tough questions from regional officials today about his city's plans for an ambitious sports arena and convention center.

Seattle Mayor Charles Royer is hosting the closed-door session to examine the impact of Bellevue's proposed civic complex on other regional facilities, including the Seattle Center, the Tacoma Dome, the new state convention center in Seattle and the Kingdome.

"I'm not looking to get beat up," Bozeman said. "I'm looking forward to it."

Bellevue has come under fire for its bid to woo the Seattle SuperSonics basketball team, which has announced interest in moving from the aging Seattle Center Coliseum to a new arena.

Bellevue has proposed construction of a 50,000-square-foot convention center and parking garage in conjunction with a privately owned 17,000-seat sports arena. The city is eyeing a site downtown near Interstate 405.

A divided Bellevue City Council voted Monday to begin negotiations with downtown property owners to acquire between nine and 12 acres for the complex.

The council's vote also gave city staffers a green light to begin detailed negotiations with the Sonics and return with a recommendation to the council in September.

Bellevue city officials contend they aren't responsible for a regional bidding war, saying the approached by Sonics Pres Whitsitt in February.

"We know the guy (Soni Barry Ackerley) is going to other stadium, whether Bellevue or Seattle," Bozer

"We've been financing projects in Seattle for a lo said Bozeman. "It's been a for Seattle to swallow tha regional facilities are goi built within Seattle city lin

Royer — who has flatly r engage in a bidding war w vue over the Sonics — ha that a new arena would thr health of existing conver sports facilities.

"The primary concern is existing arenas, there is a need for public subsidy," sa spokesman Bill Wright. If siphoned off business from sports facilities, taxpaye likely be forced to contrit more, he said.

The Tacoma Dome also lose if a new arena and c hall is built, said Tacom Doug Sutherland. "I do there's any question abou said.

While Sutherland ackn Bellevue likely has a "si amount of community pric proposed civic complex, Bellevue can't ignore the in other communities.

Sutherland said the So have eight years remaining Seattle Center lease, and tioned the speed of Bellev for the new complex.

"I'm going to ask, 'Wh

Municipal Dock Building granted 90-day reprieve

The Municipal Dock Building won a 90-day reprieve from the bulldozer Tuesday night.

The Tacoma City Council agreed to hold off on its demolition to give the community and city staff time to investigate ways to save the crumbling structure, which once served as one of four gateways to the city.

Councilman Greg Mykland had suggested the structure be torn down because it is a considered a fire hazard, is uninsurable and is wrapped in asbestos which will cost

years to entice developers to purchase and renovate the sagging structure, built in 1911 and used for years as a ferry terminal. Even the Metropolitan Park Board recently rejected it for its headquarters.

However, Mykland said he would be willing to wait a little longer if the community and other council members were interested in trying once again to save it. The council will discuss the building's future Aug. 25.

Councilman Tom Stenger said the building is a valuable historical as-

Measles spreading fror

By Kathleen Merryman
The News Tribune

Eatonville High School's measles outbreak has hit 15 kids and threatens to spread to the town's elementary school, where a teacher's aide broke out with spots and a high fever Monday.

Although Tacoma-Pierce County Health Department workers are stopping short of calling the Eatonville situation an epidemic, they are concerned that the disease is spreading rapidly and that people don't seem to be doing the basics to stop it.

"When we've had outbreaks before, we have seen an increase in

nized. We see that in bot calling for information an in here for the shots. My that people aren't taking ously," said Karen Mottr has been coordinating th Department's efforts to co highly contagious disease.

"This time around, I've h ple say, 'Oh, that's just the In fact, measles can hav complications. In one out of it can cause an ear infe pneumonia. One out of 1,0 can lead to encephalitis, w brain inflammation that ca convulsions, deafness or m tardation. And about two o

SEATTLE TIMES JULY 6, 1987

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Scrubbing a chunk of history

ASARCO cleanup removes more than just pollutants

by Mary Ann Gwinn
Times staff reporter

TACOMA — Even in its death throes, the ASARCO smelter whispers of days when industrial power forged the future of the City of Destiny.

Its ex-workers have moved on to other jobs, although some got paid to dismantle the carcass of their former workplace. Bereft of its labor force, the industrial relic now being disassembled is a haunting sight. It's both a monument to the waning blue-collar economy of the Pacific Northwest and a warning of the long-term effects of industrial pollution.

The copper smelter — in the tiny enclave of Ruston — met its end in 1985 after decades of head-butting with regulatory agencies which sought an end to arsenic spewing into the air.

Some say the proposed cost of environmental controls to contain the arsenic led ASARCO to shut down the smelter. Others lay the closure at the feet of Third World countries, which could smelt copper with cheap labor and few environmental restrictions.

After the closure, the entire ASARCO plant — almost 100 acres of brick buildings, pipes, flues, storage bins and refineries — became a federal Superfund cleanup site, based on massive arsenic contamination of the buildings and grounds.

The area where arsenic most heavily contaminated the plant has been demolished. The cost for that, says Rick White of the EPA, is "in the millions." Many other buildings remain, and the final cleanup cost depends on what the federal Environmental Protection Agency decides can be done with it.

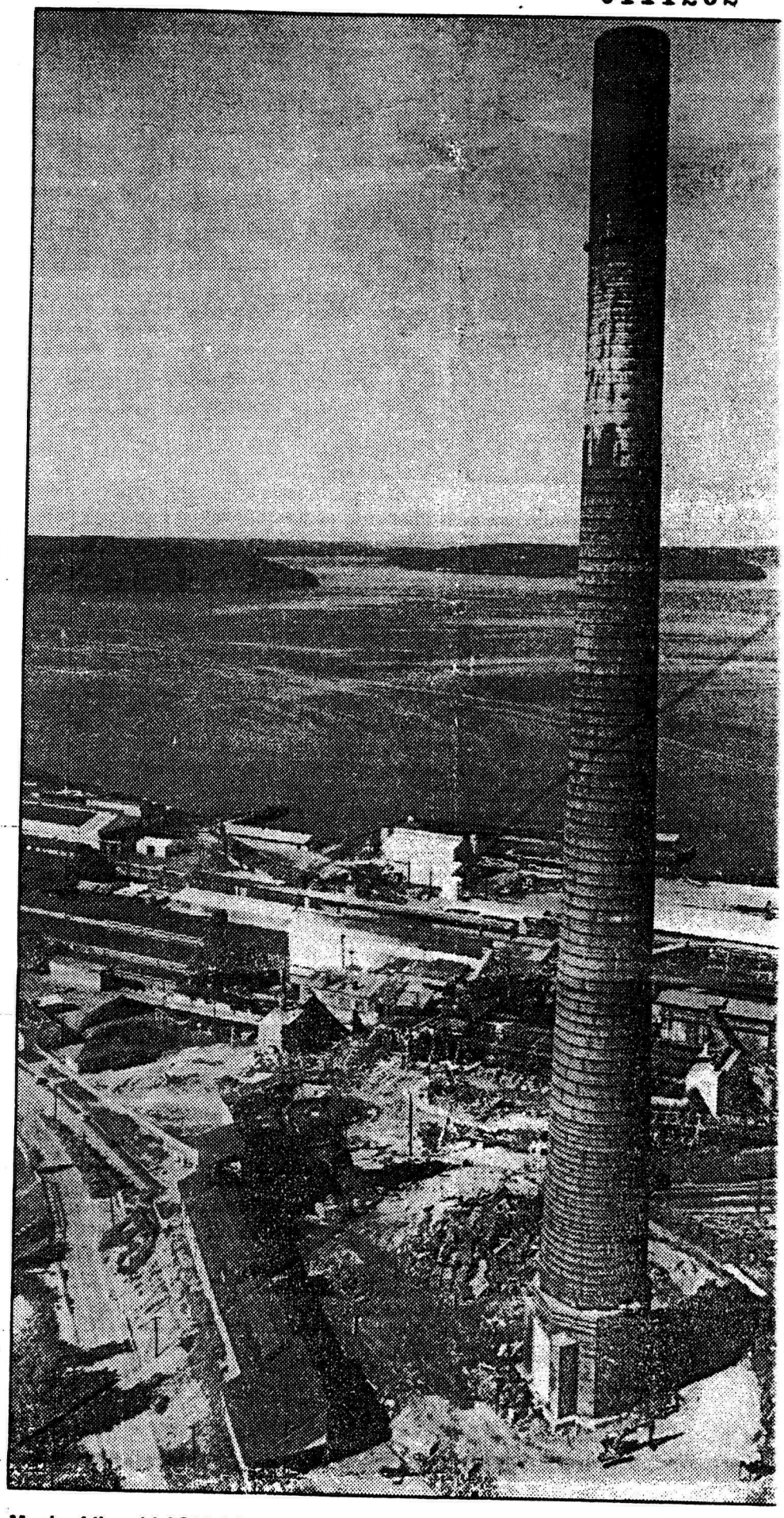
Walking on the site is like a stroll through a post-holocaust "Road Warrior" movie set.

Almost 100 years of arsenic and lead contamination have rendered the ground nearly barren. The only plant that grows in the arsenic, a natural pesticide, is the horsetail, famed for its ability to grow anywhere.

And wrestling the environmental bad boy to the ground has been a battle unto itself.

Unlike many Superfund sites where cleanup workers must deal with a stew of toxic chemicals, there are only two contaminants of concern — arsenic, a byproduct of the copper smelting process, and asbestos, used throughout the plant as a fire

Please see **SMELTER** on B 2



Much of the old ASARCO plant is demolished, but the fate of the 572-foot smoke

began moving south.

From Seattle, which had a mix of clouds and sun, it looked like a black wall to the north.

It was a classic example of what weather forecasters call the Puget Sound convergence zone, a common weather feature this time of year that plays an important role in causing the area's erratic rainfall pattern.

The National Weather Service reported that yesterday's convergence zone dumped rain almost all day on Everett and 0.17 inch at Whidbey Island Naval Air Station — but none at Seattle-Tacoma International Airport.

At Seattle-Tacoma International Airport, the high was 67. In Everett, the high, 56 degrees, occurred at 6 a.m. The temperature dropped during the day to 53 degrees by 8 p.m.

Yesterday's convergence zone was typical of such events — a southward creeping band of rain clouds 15 miles wide with sunshine to the north and south. If you had been at the southern edge of the moving cloud band, you would have noticed that a brisk south wind suddenly shifted to a north wind. That shift marks the convergence zone.

> zones, but ours has the most profound effect on the weather of any I know of.'
>
> **Clifford Mass**

Convergences are hard to predict, but clouds and rain are not. The U.S. Weather Service expects clouds and rain through Wednesday and possibly some clearing Thursday and Friday. Highs will be in the mid- and upper 60s, with lows in the 50s.

"Puget Sound is not the only place with convergence zones, but ours has the most profound effect on the weather of any I know of," said Clifford Mass of the University of Washington's department of atmospheric sciences.

Mass has found that formation of a convergence zone depends on specific conditions. The wind must be blowing onto the outer mountains to the south, blows up the Chehalis River valley and over low hills into Puget Sound near Olympia.

Then things get complicated. The Cascade Range is a barrier that forces the wind to turn. The two air masses turn toward each other.

Why do they turn toward each other? Mass says there is evidence that a trough — a low-pressure area — forms and pulls the two air masses toward it.

The place where the opposing air masses meet is the convergence zone. The wind from the north, which has been traveling over water, is colder and thrusts under the south wind like a wedge. The warmer air rises and cools, clouds form and rainfall may begin.

"The typical convergence zone forms north of us in the morning, moves south and then tends to stop over Seattle," Mass said. "That explains the disparity of weather we often see, when it's sunny and in the 60s at Sea-Tac and in the 40s and drizzly in Seattle's North End."

Staff reporter Don Duncan contributed to this report.

Cleanup of ASARCO site is a big, dirty job

SMELTER

continued from B 1

retardant.

But the volume of arsenic and asbestos in the place and the plant's state of physical decay have turned cleanup into a formidable task.

White is the only EPA employee on the site. The Puget Sound Air Pollution Control Authority, which dogged the smelter to reduce its emissions in the 1970s, has bowed out of the ASARCO demolition process.

Ron Busby, chief of enforcement for the air-pollution authority, says federal Superfund designation means his agency has no power to enforce notices of violations. That leaves the EPA as the sole enforcer.

The EPA has had to stop the cleanup twice.

The job got off to a bad start when one of the brick flues simply collapsed, sending up arsenic-laden dust. "Some parts of some buildings were literally 100 percent arsenic," White says.

At first, workers "weren't very careful," he says. "It's really hard to get these people to understand the dangers of arsenic. Until they get a burn, they don't believe you." After a half-dozen workers complained of skin inflammation, they got the message that full body protection was required, even on the hottest of days. White says there have been no lingering health effects for exposed workers.

Cleanup workers also found that asbestos had been applied with tar throughout the plant, making it impossible to remove except by demolition. That problem also shut down the cleanup for a time. The asbestos finally was left stuck to the brick. Whole chunks of brick, tar and asbestos were hauled to the hazardous-waste landfill in Arlington, Ore.

On the plus side, air-monitoring equipment around the site has picked up excess quantities of arsenic only twice, both during a period of intensive demolition in January, according to Doug Pierce of the Tacoma-Pierce County Health Department. Workers routinely wet down demolition sites with hoses; the runoff goes into settling ponds, and the arsenic leftovers are shipped to a smelter in Montana for metal recovery.

Studies of residents around the smelter have found some with elevated levels of arsenic in their blood, but no associated health effects.

"In general, it's going well," says Busby. "It's a tough project."

The fate of the 572-foot smelter stack, symbol of the power the smelter held over the community for generations, is unclear. There is uncertainty as to how or whether it should be torn down because arsenic dust still coats the inside.

If the site is ever declared safe, it could fetch a good price. It's prime industrial property because of its proximity to water. Its world-class view of Commencement Bay has attracted at least one entrepreneur who thinks it would make a great restaurant site.

When that happens, prosperity may return to the promontory that the smelter's hulking shell now dominates. But it will be at least three years before EPA's investigation of the entire site is complete.

Whatever comes to the property, it won't replace the smelter in the lives of the workers who brought home their bacon from ASARCO.

About half the 550 workers who lost their jobs when the plant closed have found other jobs, aided by a federal program for retraining workers in "smokestack industries" that closed because of overseas competition. Others have never been able to make the adjustment.

A more intangible loss is the place the smelter occupied in the community it fostered. Ruston itself is named after the man who founded the smelter before the turn of the century.

Curtis Dungey, the environmental scientist who oversees the cleanup for ASARCO, grew up in Tacoma and worked at the plant for several years before presiding at its demise. Whatever ASARCO's fate, he says the place will never be the same.

"All the people are gone," he says. "It gets lonely around here."

While neither Adams nor ner has yet chosen sides amon four Democratic congressmer are interested in the party's 1 Senate nomination, Ron Dotz who ran Gardner's 1984 camp got his start in politics as a B protege. And Adams' camp sa Bonker provided more help to uphill campaign last year tha fellow Democratic Reps. Nor Dicks, Mike Lowry or Al Swif

At least on the surface, all shadowy Senate campaigning hasn't caused relations betwe the four Democratic House m bers to degenerate much. Swi in an appearance at Bonker's money-raiser in Washington, last week.

Sen. Evans holds off on holding up nomin

Sen. Dan Evans has show readiness to use the Senate's plex rules to block confirmati Reagan administration judici nominees, hoping to prod the reluctant president to nomina candidate — William Dwyer - a judgeship in Seattle.

But apparently there's a li to how far Washington state's Republican senator is willing push that strategy.

He could, for instance, pu similar "hold" on confirmatio Robert Bork, Reagan's nomin for the Supreme Court. But w he?

"Of course not," Evans sa

Immoral Minority lot celebrates its demis

The Immoral Minority, a tweaking, fun-loving lobby ba Olympia, has decided to call quits after six years of politic hedonism.

"The thought of burning i with Jim and Tammy Bakke too much to bear," says Jim Lazar, who established the or zation in response to the rise religious right in Washington.

Lazar's lobby, which follo the motto, "Better Blatant Th Latent," celebrated its demis week at a disincorporation pa

Smelter crew plans 'harvest'

By JEFF WEATHERSBY
The News Tribune

Officials of various charity food organizations are reacting warily to an offer from Asarco smelter workers to harvest unwanted fruits and vegetables from Tacoma-area gardens so the food can be distributed to needy families.

Chuck O'Donahue, business agent for United Steelworkers of America Local 25, said yesterday smelter workers were making the offer because of adverse publicity about arsenic and cadmium emissions from the smelter.

Some backyard gardeners may be afraid to eat their home-grown crops for fear the vegetables have been tainted by arsenic, O'Donahue said.

"A lot of people will just let it (food) rot on the ground," he predicted.

But the food is edible if properly prepared, O'Donahue said, and smelter workers don't want to see the crops go to waste.

The Tacoma-Pierce County Health Department has issued a booklet warning people to wash and peel vegetables grown in local gardens.

The Health Department has also warned that toxic cadmium emitted by the smelter also could pose a health threat to people who eat locally grown produce.

The department said the greatest concerns are with lettuce, beet greens, spinach, carrots, potatoes and possibly cauliflower and cabbage. Department officials have warned residents to use "extreme care" in growing the vegetables because of cadmium deposition.

Asarco claims its arsenic and cadmium emissions pose no health hazard.

O'Donahue has proposed that unwanted food be delivered to the Emergency Food Network or other charitable organizations. People interested in donating food may call O'Donahue at 759-5251 or Debbie Kapfhammer at 759-2146.

But Chris Schwartz, special projects coordinator for the Emergency Food Network, said yesterday the network had not been contacted by O'Donahue.

"We are willing to discuss it with them and then discuss it with each food bank to see if they are willing to accept the food," Schwartz said.

One food service official said there was concern the food services were being pulled into the political debate over the smelter and proposed Environmental Protection Agency standards for emissions from the plant.

Jeannie Darneille, director of the Food Network, noted the state has a "Good Samaritan" law that protects farmers and others involved in food distribution from civil or criminal liability if the food was donated to a non-profit organization in "good faith."

Several people growing gardens in the North End yesterday said they planned to eat the vegetables and fruit they have grown despite potential health threats.

An elderly North Huson Street woman said she and her husband have been eating from their extensive garden for 17 years.

She said they planned to eat the food they have grown.

Even if they had fears about the food, she said, her husband has cancer, and "I'm so old I don't care," she explained.

"Our children don't live in Tacoma so they can't be hurt," the woman said.

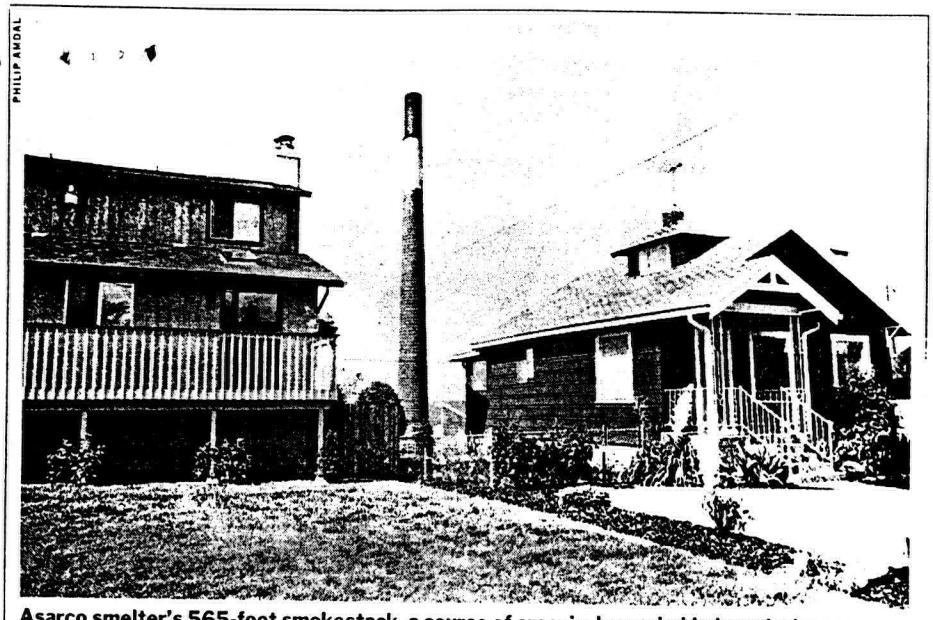
John and Debbie Wegener are growing a small garden at their home at 2713 N. Vassault St. and plan to supplement their grocery store purchases with home-grown produce.

Wegener said the arsenic issue had "crossed my mind."

But he added he thought they lived far enough away from the smelter and had imported garden soil so the arsenic posed little threat.

Debbie Wegener said the high levels of arsenic found in the Tacoma area bothered her but she also noted that she had read arsenic had also been found in the reservoir from which their water is drawn.

They called it a "Catch-22" situation in which they would be washing arsenic-contaminated vegetables with arsenic-contaminated water.



Asarco smelter's 565-foot smokestack, a source of arsenic, looms behind nearby homes

Tough Decision for Tacoma

The EPA poses a choice between cancer risks and jobs

Joggers in Point Defiance Park near Asarco Inc.'s mammoth copper-smelting plant sometimes complain that they can taste the air on windless days. With 575 workers, the 80-acre smelter, operated by Asarco since 1905, pumps some $35 million annually into the Tacoma, Wash., area economy. Unfortunately, the smelter pumps out arsenic, a deadly cancer-causing poison that is released directly into the atmosphere as a byproduct of copper refining. Last week EPA Administrator William D. Ruckelshaus announced details of a new federal air-quality standard for arsenic emissions. However, he left open a tough choice between a reduced but still clear risk of cancer for Tacoma residents and the loss of hundreds of jobs if the plant shuts down. Ruckelshaus' solution was a radically new departure in environmental policy: ask the community to help make the decision.

Ruckelshaus called on Tacoma to hold public meetings on the issue next month, with EPA officials participating. Said he: "People need to hear more of what the administrator of this agency hears from the scientists: mainly, that we have a lot of gaps in our knowledge. Most people think the facts are clear, but it is often true that there is enormous dispute over what the facts are. And we just can't sit there and let nature take its course."

The action represents more open-mindedness on the part of the EPA, which in the past has generally invited public discussion only after policy decisions have been made. Nonetheless, some environmentalists viewed the new approach as the kind of morbid cost-benefit analysis they have long opposed. Western Washington University Professor Ruth Weiner said that asking the community to determine what is best is "economic blackmail. People will vote for jobs and cancer." Warned Richard Ayres, head of the National Clean Air Coalition: "You're balancing money and lives, and they just don't balance."

The arsenic-emissions standard proposed by EPA and slated for public discussion primarily affects the Tacoma smelter, which is the only U.S. plant using arsenic-rich copper ore imported from the Philippines. The proposed standard requires the smelter to install the best available technology to lower its overall arsenic emissions to 189 tons per year from the 310 tons that annually belch from its 565-ft. smokestack and seep from other parts of the plant. Asarco is already spending $4.4 million to install hoods that should cut back emissions to precisely those levels. Despite these safeguards, Ernesta Barnes, EPA's Northwest regional administrator, maintains that "arsenic is toxic at any level" and Asarco's new hoods will "still result in emissions in the air." Counters Larry Lindquist, the smelter's plant manager: "We don't think cancer deaths can be related to the plant. There's been no proof that these emissions cause health problems."

Indeed, the precise threat of lung cancer, which takes from 13 to 50 years to manifest itself, is poorly understood. Says Stan Neff, 53, who has worked at Asarco for 18 years: "I've lived around here all my life and I'm not concerned about any health hazards. It's a lot better than it was 50 years ago." But Darcy Wright, a Tacoma homemaker who lives a mile from the smelter, worries about raising her four-month-old son. Says she: "Somehow I'm going to have to provide him with a protected area." Summed up Ruckelshaus, who stressed that he alone will make the final ruling: "The only way I know how to do it is to open it clear up. Let every bit of information we have out, and let the public wrestle with it the same as we do." ■